SYSTEM OF DISTANCE EDUCATION AT SUMY STATE UNIVERSITY

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Abstract. Development and introduction of distance education in educational system is one of the actual tendencies of society informatization process. Authors describe experience of introducing distance education in Sumy State University and characteristics of own tools used to organize learning activities of student in distance education form – system of distance education.

Keywords: distance education, distance course, system of distance education

1. INTRODUCTION

Following modern world tendencies Ukraine works out and realizes a number of state programmes directed to informational development of educational sphere. In the system of Higher School informatization processes become apparent in active development and introduction of distance education.

Scientific and methodical work carried out in the institutions of higher education contributes to formation of distance education in Ukraine. Such establishments can be distinguished among them: Kyiv Shevchenko National University, National Technical University of Ukraine "Kyiv Polytechnic Institute", National Technical University "Kharkov Polytechnic Institute", Sumy State University, Kharkov National University of Radio Electronics, Khmelnitsky National University, National Academy of State Government by the President of Ukraine.

There are different interpretations of the term "distance education" in home and foreign scientific and methodical literature. Using the notion of "distant education", the authors of the article are guided by the following definition by Doctor of pedagogical science E.S. Polat (laboratory of distance education the Institute of the Contents and Methods of the Education of Russian Academy of Education): "The distance education – is interaction between a teacher and a student, and students with each other which reflects all peculiarities of educational process (aims, content, methods, forms of organization, educational means) and which is realized with the help of specific means of internet-technologies or other means that prove interactivity" [1]. Specific features of distance education are marked out from this term. They are physical remoteness of the subjects of educational process and use in the educational process of informational technologies that must be taken into consideration during introduction of distance education.

Practices of introduction of distance education in SSU and in others Ukrainian institutions of higher education shows that still a number of problems exist nowadays. The director of Methodology and Information Technologies of Education Institute of The Academy of Pedagogical Sciences of Ukraine, Doctor of technical sciences, professor V.Bukov marked out in his work main actual research tendencies of distance professional education problems and divided them into five groups: psychological and pedagogical, computer-technological, administrative-organizational, financial and economic, juridical [2].

In the given article the authors present the system of distance education Salamstein worked out in SSU.

2. PROGRAMME AND METHODOLOGICAL SOLUTION OF DISTANCE EDUCATION REALIZATION IN SSU

Since 2002 distance education introduction programme for professional training for Bachelor's degree in the following directions "Enterprise Economy" and "Applied mathematics" has been started.

Theoretical studies and analysis of functional capabilities by existing systems for distance education were the first step to realize the program of distance education introduction at the university [3-6]. Experience accumulated since 2002 allowed to work out our own system of distance education using our resources.

Characteristic of distance education system Salamstein
System of distance education (SDE) Salamstein is a system of educational process control and it allows to organize active academic and cognitive students' activity giving them opportunity to devise their own educational trajectory. Academic and cognitive activity control means in SDE Salamstein are ways of educational material rendering and educational tasks definition.

Specific feature of SDE Salamstein is its multifunctionality, which provide:
- creation of distance educational courses and practical tasks of different kind (tests, simulators, interactive demonstrational and laboratory works, business games);
- organisation of students academic activity (from stage of registration in the system till completion of educational programme study);
- organization of tutor's work on distance course working out and supporting ;
- clear distribution of user groups functional capabilities (administrator, teaching assistant, programmer, tutor, student, guest);

- built-in electronic message system with possibility of messages copy sending on e-mail;
- different educational programmes and groups forming, using united educational material database.

System of distance education has programme and methodical constituent. Such main modules are marked out in the programme constituent: registration module, module "profile", control module, course devising module, course teaching and class organization module, course learning tools.

Registration module. Registration module allows to organize independent users' registration in the system. For the registration the user must indicate: last name, fist name, login, personal e-mail. The user should activate his account. Data for account activation is sent on e-mail, which user has pointed. The system itself generates a password; the user doesn't chose it himself. Generated password is sent to user's e-mail for registration. The system doesn't store passwords in open type, that's why if the user looses his access password a new one is generated.

After registration the user enters personal biographical particulars. Some part of this information may be accessible for shared review. The user defined fields available for shared review himself.

Module "user profile". Module "user profile" contains such functional submodules:
1. list of modules that are available to particular user;
2. personal information (entering information about oneself, password changing);
3. list of users with whom the user can contact;
4. internal message system.

Internal message system serves for asynchronous communication between the system Salamstein users. Internal message system interface is similar to well-known mail programmes. Let's mark out its main features:
- messages receiving and storing in virtual directories (inbox, sent, trash)
- messages creation and sending;
- one enclosure in the message is allowed;
- theme, date and author sort of user's messages.

Class organization module. Class organization module or module "training class" allows to realize particular educational discipline learning and students and teachers interaction while its study. A training class is a structural union of such elements: particular educational materials version in discipline, users (class participants) roles list, discipline study schedule (well-ordered tasks, rules and its due dates list).

Module "training class" includes such functional submodules:
1. Class title page contains course goals and objectives, study algorithm, course study terms, type of final control, instructions on final control.
2. Information about class participants (student, tutor, teacher).
3. Lecture material review.
4. Means of practical tasks fulfilment.
5. Means of fulfilled tasks results review.
6. News and announcements.
7. Web-recourses references on training course themes.
8. Means of educational materials discussing.

Methodical constituent contain more than 120 distance courses for the time being. A distance educational course is a set of lecture materials, test tasks, simulations, electronic reports, multimedia virtual models that appear in collaboration of tutors, coders and methodologists. For every distance course the following aspects are defined: 1) a group of students who learn it; 2) a tutor supporting this course; 3) a teaching assistant that cooperates with a tutor.

The server part of these tools is a Web-application elaborated with open-source software. Interactive simulations and virtual multimedia models use modern Web-technologies, such as Java, Shockwave Flash, VRML (http://dl.sumdu.edu.ua/demo/).

SDE capabilities for users. Worked out system of distance education has a number of functional capabilities for a tutor, a teaching assistant, a programmer and a student. Clear definition of rights and duties of different users give an opportunity to join each user to one of the groups: an administrator, a creator (programmer), a teaching assistant, a tutor, a student, a guest (http://dl.sumdu.edu.ua/news/2006-12-13.shtml).

Such main possibilities are singled out for a tutor supporting student distance educational process: giving students results reports, text editing and improvement, putting announcements for educational group, time schedule forming for given discipline, communication with students with the help of internal message system. A teaching assistant apart from these functions has possibility to review detail statistics of students' and teachers' attendance statistics.

3. CONCLUSIONS

As practice shows during work with system appear necessities in working out of new functions. As the system is being developed by programmers in the Laboratory of distance education, it makes possible to improve and develop it constantly at the expense of our own recourses. At the same time the theoretical study of the adaptive system of distance education control with the intellect elements is carried out by the branch of UNESCO chair "New Information Technologies in Education" under the direction of Prof. Krasnopoyasovsky A.S.

Presented system of distance education now is realised in SSU for distance educational form. It is planned to apply the system for students of other educational forms in future.

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