METHOD OF PREPARATION AND CONDUCT WEBINAR IN INFORMATICS FOR STUDENTS OF AGRARIAN COLLEGE

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Анотація. Актуальність дослідження зумовлена необхідністю постійного вдосконалення засобів, форм і методів навчання інформатики студентів аграрних коледжів для набуття ними інформаційної культури. У статті автор розглядає вебінар як засіб організації ресурсно-орієнтованого навчання студентів, аналізує специфіку методики підготовки і проведення вебінарів з інформатики для студентів аграрних коледжів; етапи та правила розробка вебінарів з інформатики; можливості та функціональні особливості вебінарів, вебінар-орієнтовані платформи й сервіси Інтернету для ефективної організації та проведення вебінарів.

Ключові слова: ресурсно-орієнтоване навчання, інформатика, аграрний коледж, вебінар, віртуальна аудиторія, ментальна карта, соціальна мережа.

Аннотация. Актуальность исследования обусловлена необходимостью постоянного совершенствования средств, форм и методов обучения информатики студентов аграрных колледжей для формирования у них информационной культуры. В статье автор рассматривает вебинар как средство организации ресурсно-ориентированного обучения студентов, анализирует специфику методики подготовки и проведения вебинаров по информатике для студентов аграрных колледжей; этапы и правила разработка вебинаров по информатике, возможности и функциональные особенности вебинаров, вебинар-ориентированные платформы и сервисы Интернета для эффективной организации и проведения вебинаров.

Ключевые слова: ресурсно-ориентированное обучение, информатика, аграрный колледж, вебинар, виртуальная аудитория, ментальная карта, социальная сеть.

Abstract. Topicality of this research is caused by the necessity of constant improvements of tools, forms and methods of computer science education of students of agricultural colleges to form IT culture among them. The author of the article considers webinar to be a mean of resource-based learning, analyzes the character of methods how to prepare and to hold an IT webinar to students of agricultural colleges, puts forward steps and principles of developing of IT webinar, possibilities and functional features of webinars, web-platforms and Internet services for effective organization and holding a webinar.

Introduction

The main goal of the course "Information and Computer Technology" and other disciplines of computer cycle, studied at the Agrarian College, is to make the student of Agrarian College ready to the life in the new media environment. This course is currently characterized by a permanent increase in the volume of educational content and its quality as a result of complications of rapid development of computer science; insufficient number of hours in the development of this content (from 72 to 162 hours), lack of teaching of course with existing state educational standards in Informatics that allows you to fully support the decision of the challenges learning science, forming as information culture, the foundations of the scientific world, the combination of practice-oriented and fundamental training students.

Having above indicated problems necessitates constant search for effective methods and means of teaching science to improve the efficiency of representation and development of educational information on the course, informative and educational process intensity with increasing quality. A gradual transition to a resource-based learning computer science in college allows to solve these problems.

Analysis of recent research

Resource-based learning (RBL) – a set of forms and methods of training, aimed at a holistic approach to the educational process, which is aimed not only at learning and the acquisition of skills, but also on the ability of self-training and active transformation of the information environment by finding and practical application of information resources [1]. On the other hand, RBL – a trend in the development of innovative educational technology, which enables the implementation of appropriate teaching principles of learning and provides individual educational way of development for each student. RBL is an applied aspect of higher professional education.

RBL as a contemporary field of study in schools, colleges and universities Actively exploring foreign researchers (Margaret Butler, Elizabeth Green, Janette R. Hill, Michael J. Hannafin, Jacqueline Smith-Autard, Said Hadjerrouit, Paul Maharg) are especially focusing on the use of active methods and modern training facilities that stimulate cognitive training and search students activities.

Jacqueline Smith-Autard (Ireland) said that RBL as didactic system requires primarily active learning from students, and active teaching – from teachers in the educational process using a variety of resources (multimedia, interactive video, virtual laboratories, media, etc.). The teacher alone can form a bank of teaching materials based on the principles of scholarship, differentiation, individual approach and other didactics principles [9].

Said Hadjerrouit (Norway), exploring the forms and methods of RBL, proposes to web-based learning, the potential is as great, as educational resources of the World Wide Web are rich. Methods of this study include the study of web-based virtual learning, technology-oriented methodologies and an online learning [5, 6].

In the study, teaching opportunities of internet services and on-line learning, which uses two formats for on-line-communications (webinar and webcast), Dale Holt, Christine Armatas, Mary Rice (Australia) noted that the systematic use of resources and facilities search network helps to provide the results of learning practical orientation, enhances students' information culture and shapes their logical and critical thinking [7]. Popular point is the use of services, conferencing and webinars that allows lessons in virtual classrooms, libraries creating podcasts, holding conferences in online mode, protecting of student projects, etc.

The purpose of this article is to determine the method of preparation and holding webinars on Informatics for students in Agrarian colleges in resource-based learning.

The main part

Today science teachers are in constant search for effective means of teaching; one of these tools becomes webinar. An analysis of educational practices webinars in our country mostly spend large universities and organizations (where the accumulated human and technical resources), however, was the request of teachers of Agrarian colleges to develop and conduct webinars for students, which led to the demand for methods development and conducting webinars in the study of science. In the context of RBL computer use webinars can be viewed as a form of training (lectures, seminars, and consultations), while at the same time, the webinar can be a means Ron and powerful didactic Internet resource.

Webinar – an online workshop that provides opportunities for the drive to transmit information (experience, knowledge, skills, tasks), and participants for the virtual class, which is the ability to hear and see each other anywhere in the world, get information and learn.

N.V. Morse Webinar examines how technology that ensures the implementation of interactive activities in synchronous mode and provides tools for remote collaborative (joint) of participants [3]. Using webinars can fully reproduce the conditions of collaborative forms of training, such as seminars, laboratory, practical classes, lectures on science, using means of audio, video, data sharing and collaboration with a variety of objects, despite the fact that its members may be physically located in different places. This creates a virtual audience that unites all participants webinar. In this virtual classroom (virtual classroom software) – this is software that simulates the environment of a real audience on the Internet [8].

V.M. Kukharenko webinar called virtual workshop organized by Internet technology is a technology and educational cooperation that group interaction of the learning process [2]. Webinar is indicator of the seminar - interactivity that can be achieved by using model "speaker and listeners" who ask questions and discuss them with it as a speaker can act both teachers and students.

Considering the idea of educational cooperation focuses on such methods by which it is desirable to further cooperation in virtual rooms: learning through discussion, learning through participation (poor student studying under stronger students), training assistance through another (student learns by teaching other student) learning through observation (learning occurs through observation process explain another student) learning through expression (learning occurs through explanation or presentation for other students) learning through criticism or advice (learning occurs in the course of criticism or correction training other students) [4].

We consider webinars as a mean of training activities of students at RBL.

Methods of preparing and conducting webinars on computer for students of Agrarian colleges based on the account:

–   specific purpose, content and process components of methodical science teacher (understood as a set of methods, tools, forms of learning activities and methods presenting educational material, based on methodical style of teacher experience and provides a focused and clearly defined pedagogical impact, in accordance with objectives and content of education), which is implemented in the structure and content of the webinar;

–   model creation process webinar on Informatics for students, including analytical (analysis of the content of educational materials and standard requirements, the formulation of goals and establish their mutual compliance, selection of content that requires an interactive discussion), design (choice of methods and instructional techniques used in the webinar, determining the types of visual aids, forms of educational materials and methods of its supply) and technological (design clarity, the transformation of traditional content in a structured heuristic text, software and technical organization webinar) stages;

–   system requirements for the webinar on computer for students that define pedagogical appropriateness of their use (didactic, teaching, management and decoration-compositional requirements).

Depending on the particular software platform webinar can have the following capabilities and features are:

1. Conduct audio and video with different quality video and broadcast several participants simultaneously.
2. Instant messaging via text chat. It is possible to use as a general chat when all participants see all messages and private communication two people with the ability to block incoming messages.

3. Demonstration of electronic resources of different formats: presentations, documents, web pages, videos.
4. Sharing between participant's webinar - upload and download files of any size.
5. Teamwork software – webinar participant with appropriate privileges (the teacher) shows all the other participants in the work environment of specific software on your desktop. This teacher has the right to transfer management of the program to any student with a specific task.
6. Web tours - a means to co-navigate Web sites. In addition, the host can send participants web addresses for independent review in their browser.
7. Polls and testing webinar participants and instantaneous visualization of results using various diagrams.
8. Whiteboard – electronic panel that serves as board for teamwork and a standard set of tools: line, circle, rectangle, etc.
9. Breakout rooms («breakout rooms") – a virtual room to work with groups. Typically, these rooms are equipped with a means of collective work with text, videos and multimedia presentations.
10. "Raising Hands" – allows the participant webinar to attract the attention of the lead and ask microphone, camera or other functionality. In a separate window while driving appear in the proper order the names of the participants who "raised his hand."
11. Ability to print or save to disk material webinar in its execution.
12. Having a separate part of the virtual audience to accommodate the plan of the webinar. Such a plan is visible to all participants, and some of his points are celebrated during their execution.
13. Opportunity for participants to identify emotions such approval, denial, etc. with a special indicator to some extent compensate for the lack of direct contact.
14. Record the webinar for future use and analysis.

Functional features webinars suggest that webinars are an effective means to improve the quality of teaching informatics in Agrarian colleges through its didactic potential that lies in the following features:

– *Interactivity learning* provides learning management and creates conditions for different types of training activities in explaining new material by speakers presenting information;

– *Personification learning* by allowing the simultaneous implementation of video conferencing, instant messaging, "private chat" for comfortable assimilation of information;

– *Typical equipment* complex and abstract concepts informatics-based Multimedia;

– *Efficient update* and change the content of education in accordance with the rapid development of science computer science and information technology;

– *Adaptability* to the needs of students (choosing a convenient time, the use of interesting and understandable for students technology away from class-task learning system).

Development webinars on computer for college students includes the following steps: defining the target group for the webinar, webinar design objectives, content analysis of themes, choice of program and organizational basis for the webinar, the selection of content for the webinar (main principle – new, unusual, ie try to impress your audience something new and unexpected) finding problems in the development of the contents in the eye and distance form, formulation of objectives from the perspective of teaching and learning contents transformation into structured text, defining blocks in structured text, the choice of species clarity, providing problematical and interactive learning unit structured text, the definition of presentation logic blocks, forms and methods of their presentation in the webinar, the definition of a technical support process of the webinar (showing presentations or video clips, which can increase the "dose" of symbolic information as opposed to full-time performance, working with virtual board, maps of knowledge, activity or interactive polls participants, organization of "question-answer" in the box online chat, etc.).

Conducting a webinar involves performing a set of rules:

1) We will inform prospective students about the date and time of the webinar (invite better dispatch within 1 week, with a reminder for 3 and 1 day before the broadcast);

2) Conduct a promotion (in the abstract reveal the main points of the report, information on the lead, the value of this webinar for students);

3) Plan a convenient time of the (possible previous survey);

4) Create instructions for installing the software and participate in the webinar, provide access to this information;

5) Conduct a test launch webinar;

6) Make extensive visualization of text (verbosity on slides presentations, charts, tables, diagrams, etc.);

7) Think about the leading language (virtual report, as opposed to real, imposes certain requirements on the host language, because using gestures, postures, facial expressions in real reports of verbal information directly

emphasis shifted to the emotional, on the webinar can only voice leading and presentation slides);

8) Predicted assistant for leading webinar (in the report of the students may have questions that are often asked via chat, so you need an assistant, who will simultaneously pay attention presenter and audience questions that were received or answer a chat, also solve technical problems in the "background" through "private" chat);

9) Along the webinar often provoke discussion;

10) Think means "entrance" and "exit" from the webinar [2].

Note that webinars are not tied to specific listeners timeframe. For those who can not attend the class at the time of the meeting, available record, which can be viewed at any convenient time.

Empirically were identified criteria for determining the effectiveness of methods of preparing and conducting webinars on computer for students: the level of perception, level playing material studied after a long time and application of knowledge in solving problems, performing practical tasks, increasing the informativeness and problematic material that is taught; efficiency upgrades and content changes, the level of expression of motivation and engagement of students in the development of a new process, availability and simplicity of use for the webinar platform.

Technology webinars implemented using platforms (websites) webinars or special software. Conduct your own webinar under certain conditions easily done. First you need to register on the site, for example, *webinar.ipo.kpi.ua*, and create in your personal office record on its own webinar. The proposed service offers for trainers (teachers Informatics) full range of services related to the organization and conduct of the webinar:

Training (demonstration) to work in an environment:

– Assistance in preparing presentations to the webinar.
– The development plan of the webinar.
– Technical assistance during the webinar.
– Provision of technical facilities and space for the webinar.

The algorithm of the webinar can be found at webinar.ipo.kpi.ua.

It is advisable to note that some practical experience of webinars for students already accumulated a national education system and the education systems of other countries. In particular, with this aim, Education Network Skype (http://education.skype.com/), this is effectively used in the educational process in different countries. To start learning, the teacher has to create a profile in which you specify your location and specialty. Then create a project in which teachers can join partners, speakers and students.

For the webinars can use social networks like *Odnoklassniki* or *Vkontakte*, which are quite popular among students of Agrarian colleges and provide opportunities for on-line communication, posting audio and video recordings, virtual groups and others.

If the teacher is a personal site, it is also possible to use resources for on-line communication with students. Site teacher - electronic platform, on which direct contact (either on-line) with students during instruction.

In the study of science should orient students on individual or group projects, such as web-quests or thematic blogs. Virtual consultations while you can do with social networking (writing messages, call the teacher or other students, etc.). During the project, students should use the totality of social services on the Internet, such as documents Google, Social Bookmarking, Technology Wiki, social networks, knowledge maps and more.

It is advisable to note that effective teaching methods that cause interest students and stimulate their educational and cognitive activity during the webinar, is to work in pairs, discussion, "brainstorming" case-method and others. Implement interactive methods to help webinar services on the Internet, which involve joint work group of participants in real time. For example, brainstorming is advisable to use software tools for building mental maps (maps of knowledge).

Mental map (from the English Mind Map – map knowledge, memory card) – diagram, which reflect the key words, ideas, tasks or other items located radially around the main words or ideas. Knowledge maps are used to generate, display, structuring and classification of ideas, and as an aid during training, problem solving, decision making, and writing documents. To work on such diagrams use special Internet services or software features that allow you to create, edit, save and import maps of knowledge, for example, service Bubble us.

Conclusions

So, didactic possibilities of webinars in resource-based learning computer science students Agrarian colleges contribute to the formation of autonomy students develop their information culture and the culture of interactive communication, promote learning, developing abilities and skills provided the introduction and integration of traditional ICT training. Conduct webinars allow you to implement forms of group work, namely the webinar involve students from other colleges, cities and even countries, and create conditions for free access each group member to an electronic resource joint activities at any time. Prospects for further research lies in developing criteria for evaluating the effectiveness of a group of remote interaction of the learning process in informatics as well as in defining the functional requirements for webinar-oriented platforms as a means to study computer science.

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