

advantage of the best world practice of creating educational cluster systems in sectoral clusters structure and dual training system which will provide high-quality sectoral staff training.

Recent history shows that only the integrated and organized into groups of cluster entities economy can function effectively under conditions of global competition. According to a number of distinguished international experts, within economic framework the post-industrial policy should be cluster-based. World practice of cluster systems development showed that they stimulated economic progress in countries where their principles were used.

In the author's opinion, the process of integrating sectoral specialized enterprises into a viticultural cluster, which includes vocational educational institutions of various accreditation levels, is important, as long as high potential staff market is necessary for all corporate groups belonging to a sectoral cluster.

The author distinguishes a major issue concerning new educational system implementation in which research and instructional guidelines should be adjusted according to branch standards and developed considering modern production practice.

Key words: *viticultural and winemaking sector, viticultural cluster, staff, professional training, dual training.*

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Н. С. Ручинська, І. В. Семененко

Миколаївський національний
університет імені В. О. Сухомлинського

ПЕДАГОГІЧНІ ПІДХОДИ ДО ВИКОРИСТАННЯ ЗМІШАНОГО НАВЧАННЯ У ВИЩІЙ ШКОЛІ

У статті охарактеризовано поняття змішаного навчання. Розкрито педагогічну роль інформаційних технологій у змішаному навчанні. Розглянуто ключові елементи побудови змішаного навчання з використанням Інтернет-технологій, такі, як забезпечення віддаленого доступу до навчального контенту. Зазначено, що реалізація змішаного навчання у вищих навчальних закладах передбачає застосування окремих веб-сторінок, веб-сайтів та веб-порталів для розміщення навчальної інформації в різних форматах залежно від її обсягу та необхідності використання додаткових сервісів. Розглянуто основні аспекти та напрями змішаного навчання у вищій школі.

Ключові слова: *навчання, процес навчання, змішане навчання, інформаційні технології, дистанційне навчання, мультимедіа, технологія, спілкування.*

Problem formulation. The current state of development of information and communication technologies brings the process of higher education obtaining to qualitative level of development, ensuring the effectiveness of direct communication of partners in the process of learning. A new stage of development of the forms of learning is associated with the creation of such a form that integrates full-time, distance and e-learning – blended learning. In Ukraine blended learning is implemented by leading higher educational establishments and post-graduate educational establishments. Under the development of information society education has a new task, which consists in the expansion of use of new informational technologies, improving educational methods.

Analysis of current research. The problems of approaches to the use of blended learning in higher education are analyzed in the works of such scholars:

O. Samoilenko, N. Morse, I. Ahmad. Researchers O. Spivakovskiy and L. Petukhova prove a new subject in the process of learning. However, the issues of pedagogical approaches to blended learning are not enough investigated.

The purpose of the article is to characterize the concept of blended learning, to reveal features of introduction and implementation of blended learning in higher education.

Methods of research: analysis, synthesis, comparison.

Main content. The model of blended learning – is a model of use of distributed information and educational resources in full-time learning with the elements of asynchronous and synchronous learning. Blended learning allows to keep general principles of the traditional educational process. The idea of applying elements of asynchronous and synchronous learning in blended learning is that students learn some part of subjects in traditional forms of learning (full-time or part-time, etc.) and the rest of disciplines (or a discipline) – in blended learning technologies [1; 12, 44–48].

Referring to the European experience, O. Samoilenko points out that blended learning is a process of learning in which 80% of the learning process is supported by information technologies. However, if information technologies are used for realization of 20 % of the educational process, it is called on-line learning support, if more than 80 % – it is called distance learning [8, 11–15].

Researchers O. Spivakovskiy and L. Petukhova prove a new subject in the process of learning. They believe that didactic model must include information and communication pedagogical environment as a real subject. It must be based on the digital representation of information, data and knowledge on local and global networking capabilities to access them. Ability to represent the environment as an equal subject in didactic process is determined by the fact that:

- it constantly increases the motivation of a young generation to consume content that circulates in it;
- it provides an access to resources at any convenient time for a person;
- it has a convenient, flexible, friendly, intelligent service that helps people to find the right information resources, data or knowledge;
- it is not emotional, it works according to the demands of a person;
- it is filled with information, data, knowledge with a high, constantly increasing speed;
- it allows to organize almost free, convenient in time contacts between different quantity of people, to provide convenient and flexible exchange of information;
- it gradually standardizes and integrates the functionality of all previous traditional means of obtaining, storing, processing and presentation of necessary information, data and knowledge;
- it fulfills more routine tasks connected with human activity;

- it gets more control over data and operational activity of mankind [10, 7–9; 11, 21–23].

Inclusion of information and communication pedagogical environment as the third equal subject of modern didactic system has a significant impact on changing of goals, objectives and content of learning, organizational forms and methods, instruments. It transforms traditional subject-centered model of learning, it influences directly and somewhat changes the role and functions of other subjects of study. It somewhat takes functions of subjects, particularly when dealing with information on different forms of learning [10, 7–9].

Blended learning is an interaction between a teacher, a student and means of teaching. Facilities of modern computer tools and information technologies allow transferring partially functions of teachers and students, adopted in the classical form of learning, to the means of teaching. In blended learning information technologies are instruments that:

- provide students with remote access not only to educational material, but also to reference information in additional, accompanying form;
- provide students with means of communication between each other and between a student and a teacher; there are technical capabilities for a student, who is far from educational establishment, to listen and look through a lecture, to participate in a videoconference or get a tutorial, to do a computer laboratory experiment etc.;
- manage and control the process of learning; student must make sure that he/she copes with educational material, understands it, remembers basic principles, can put them into practice for solving practical problems. On the other hand, the active role of the teacher is also important because the task of the teacher is not only to make sure in knowledge of students, but to take decision as for correction of training programs in order to achieve the best understanding of material;
- provide the opportunity to create effective simulators, visualization means, maximum use of different ways of presenting information: text, graphics, video, audio, animation, that is «multimedia».

A key element in building a blended learning with the use of internet technologies is providing with remote access to learning content. Internet is a source of information. That is why its services are necessary for finding the information useful from the perspective of educational activity, its analysis and evaluation. Multimedia software allow to integrate text, graphics, animation, video and audio information. Simultaneous use of several channels of perception of educational information allows to improve the level of understanding the educational material. Multimedia software allows to simulate real complex processes, situations, visualize abstract information by dynamic presentation of processes. Office software, such as text and graphic editors, programmes of preparing presentations and spreadsheets can be used

for preparing educational methodological material and for presenting the results of tasks electronically. Systems of computer maintenance training present educational material as diverse information resources and enable to do tasks and send the results of work for teacher's checking, to pass electronic tests in self-control and control mode [2, 310; 3]

To arrange educational information in different formats, depending on its size and the need for additional educational services, educational establishments can use individual web pages and websites or more powerful web portals. Bookish organization of the text where text fragments linearly follow each other is not acceptable on web pages. Integrated into a web page, the text is structured into small sections, the transition between them is made by hyperlinks. With the help of hypertext it is possible to form hierarchical information systems: they are dimensionally distributed but at the same time united by common contextual links. According to the researchers, navigation in such systems requires the development of intuition and specific thinking style [2, 72].

Widespread ways for implementation of asynchronous communication are thematic forums and online seminars. A thematic forum is a way of asynchronous communication in a certain space in the Internet, where the participants of learning process can exchange ideas on different topics for a long, often unlimited, period of time [7, 41].

Online seminar is a work of participants of learning process on the forum, that is limited in time and dedicated to predetermined range of issues within a certain topic. For a qualitative online seminar there must be appropriate previous training. During this training the teacher determines duration of the course, formulates tasks, prepares and sends invitation letters to participants. For better understanding of a theme and controversial issues it must be offered theoretical content (useful links, references) [5, 32].

Internet technologies that provide synchronous exchange of information in real time include audio, video and chat conferences. This technology is a convenient way for communication in the learning process. The main point of the technology is that in the process of discussion on computer screen a student receives texts with remarks of all participants of the conversation and can then enter own text, which takes its place in the remark sequence in the conversation. The variety of expressive means in a conversation is also interesting for students. In addition to texts there can be integrated pictures, audio, video clips and so on. High interest of students to the use of these technologies makes it possible to use them for discussion and solving specific pedagogical issues or tasks [4, 79–80].

It is urgent to implement internet conferences that are a combination of offline and online technologies. Internet conference is a long-term discussion of scientific papers on a certain topic, which are previously disposed in the Internet. Current discussions in the form of forums are created in any quantity by the

participants of the educational process (students, participants of online conferences). The final stage of the internet conference is a chat. Chat-conference is an instant interchange by messages. The advantage of this technology is an opportunity of online (synchronous) communication between all members of the learning process, the disadvantage is a necessity of simultaneous participation of people in chat, who are distributed in network [6, 148].

Conclusions. The analysis of numerous researches on implementation of blended learning in contemporary higher education has led to the conclusion that information technologies expand educational opportunities. The exchange of educational material with the help of these technologies can be realized regardless of location and time. These technologies empower teachers of higher school to control educational activity of students and to carry out individual tutorials for students on various issues during the process of work with educational material, in synchronous or asynchronous mode.

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РЕЗЮМЕ

Ручинская Н. С., Семененко И. В. Педагогические подходы к использованию смешанного обучения в высшей школе.

В статье охарактеризовано понятие смешанного обучения. Раскрыта педагогическая роль информационных технологий в смешанном обучении. Рассмотрены ключевые элементы построения смешанного обучения с использованием интернет-технологий, такие, как обеспечение удаленного доступа к учебному контенту. Отмечено, что реализация смешанного обучения в высших учебных заведениях предусматривает применение отдельных веб-страниц, веб-сайтов и веб-порталов для размещения учебной информации в различных форматах в зависимости от ее объема и необходимости использования дополнительных сервисов. Рассмотрены основные аспекты и направления смешанного обучения в высшей школе.

Ключевые слова: обучение, процесс обучения, смешанное обучение, информационные технологии, дистанционное обучение, мультимедиа, технология, общение.

SUMMARY

Ruchynska N., Semenenko I. Pedagogical approaches to the use of blended learning in higher education.

The concept of blended learning is characterized in the article. The article deals with pedagogical role of information technologies in blended learning. The article describes key elements of blended learning structure with the use of Internet technologies, such as providing remote access to educational content. It is highlighted that the implementation of blended learning in higher education involves the use of individual web pages, websites and web portals for arrangement of educational information in different formats, depending on its size and the need for additional services. The key aspects and tendencies of blended learning in higher education are described in the article. The model of blended learning is a model of use of distributed information and educational resources in full-time learning with the elements of asynchronous and synchronous learning. Blended learning allows keeping general principles of the traditional educational process. Blended learning is an interaction between teacher, student and means of teaching. Inclusion of information and communication in pedagogical environment as the third equal subject of modern didactic system has a significant impact on changing of goals, objectives and content of learning, organizational forms and methods, instruments. It transforms traditional subject-centered model of learning, it influences directly and somewhat changes the role and functions of other subjects of study. Facilities of modern computer tools and information technologies allow to transfer partially functions of teachers and students, adopted in the classical form of learning, to the means of teaching. Widespread ways for implementation of asynchronous communication are thematic forums and online seminars. Internet technologies, that provide synchronous exchange of information in real time, include audio, video and chat conferences. High interest of students to the use of these technologies makes it possible to use them for discussion and solving specific pedagogical issues or tasks. A key element in building a blended learning with the use of internet technologies is providing with remote access to learning content. Systems of computer maintenance training present educational material as

diverse information resources and enable to do tasks and send the results of work for teacher's checking, to do electronic tests in self-control and control mode.

Key words: *teaching, process of learning, blended learning, information technologies, distance learning, multimedia, technology, communication.*