Отже, використання електронних Google-форм актуальне при організації як контрольного моніторингу навчальних досягнень, так і самостійної навчальної діяльності здобувачів.

Література:

1. Булах І. Є., Мруга М. Р. Створюємо якісний тест : навч. посіб. Київ : Майстер-клас, 2006. 160 с.

2. Громик Ю. В., Грицевич Ю. В. Силабус навчальної дисципліни «Старослов'янська мова» для студентів спеціальності 035 «Філологія» денної форми здобуття освіти. Луцьк, 2021. 12 с.

3. Громик Ю. В. Старослов'янська мова. Фонетика : зб. тест. завд. для студ. філолог. спец. Луцьк : РВВ «Вежа» Волинського державного університету імені Лесі Українки, 2007. 54 с.

DOI https://doi.org/10.30525/978-9934-26-277-7-58

INFORMATION TECHNOLOGIES IN THE ORGANIZATION OF RESEARCH WORK OF MEDICAL UNIVERSITY STUDENTS

Grytsenko Ie. M.
Associate Professor, Department of surgery № 2
Poltava State Medical University
Poltava, Ukraine

Pylypiuk Y. V.
Associate Lecturer, Department of surgery № 2
Poltava State Medical University
Poltava, Ukraine

Ovchar O. V.
Associate Lecturer, Department of surgery № 2
Poltava State Medical University
Poltava, Ukraine

Mastering by future specialists of thorough knowledge, necessary skills and abilities is one of the most important problems in modern education. The solution of this problem is impossible without improving technologies and teaching methods. Therefore, the task of the teacher is not only to

provide students with systematic knowledge in accordance with the curriculum and carefully monitor their mastering, but also to promote the formation of skills in working with information, to involve them in research activities, to teach them to develop the ability to think, choose, analyze and criticize the information, to acquire knowledge independently and work in a team.

Creating a virtual studying environment in the classroom involves:

1) the use of pedagogical technologies aimed at: individualization of studying (the ability to individually select tasks and choose the rate of these tasks completion in accordance with the knowledge, skills and abilities of each student); group work with students (joint activities based on cooperation and dialogue between students, students and teacher using blogs, social networks, professional community sites, messaging services and e-mail); studying in the form of active, creative activities that allow students independently acquire knowledge in the process of research, project and other creative activities;

2) authentic "interactive" visualization of studying (the use of textual material, graphic images, video materials, sound effects, animation creates an immersive effect, affects the emotional and conceptual spheres of the student, contributes to more effective studying of the language material);

3) transparency of the educational process (the ability to monitor studying results by all participants of the educational process);

4) independent individual work of students at home or in the computer classroom using the components of the studying environment: electronic textbooks in the specialty, virtual training and control programs, reference catalogs, search engines, etc.

The main advantages of using such resources are the development of cognitive activity, independent thinking and work on oneself, increasing the level of literacy, awakening students' interest in the topic under study [1, p. 128].

The technology of multimedia studying in medical education was developed by scientists R.C. Clark and R.E. Mayer [2]. Based on many years of empirical research, they formulated a number of principles of effective multimedia studying. These principles are relevant to computer-based instruction, PowerPoint™ presentations, and other ways of using audio and video in instruction.

Multimedia Principle: graphics help students create effective representations; relevant graphics can be used to illustrate examples of an object, provide an overview of a topic, or an organizational chart.

Modality principle: studying is maximized when graphics and text are used optimally. For example, a graphic accompanied by a spoken explanation is more effective than one accompanied by on-screen text (for visual perception only). When the same information reaches working memory simultaneously through display and hearing (for example, when a teacher reads their PowerPoint™ slides verbatim), it can actually impair rather than enhance studying.

The principle of contiguity is related to the efficient placement of information. Non-graphical elements and textual elements should not be repeated, such as giving directions to exercises on the same page as the revision itself, or presenting question and answer/feedback together when providing formative feedback in online text. That is, one content should not correlate with another on the same page.

The guided discovery principle is that unstructured studying environments, as well as freeing students from explicit instructions, enhance studying effectiveness.

The guided discovery principle states that studying is enhanced when information is presented in a planned sequence and students are assisted in interpreting that information – that is, when teachers guide the studying process. At the same time, excessive guidance reduces the need for students to think deeply about new information and weakens the resulting knowledge structure.

A similar principle is the principle of example, namely, studying becomes more effective when some theory is supported by examples. However, as students gain experience, they need progressively less guidance and become more independent in problem solving. This transition from supported to independent studying and problem solving has been termed the experiential vertical effect. What works for beginners will not be effective for more experienced students.

Multimedia principle – both words and graphics are used. The principle of modality and the principle of redundancy – the description of the graphic is accompanied by a spoken commentary rather than written text, the parallel use of written and spoken text is avoided. Principle of proximity/adjacency – related information (graphics and accompanying explanation, instructions, feedback) are placed close to each other (located on the same page). Principle of consistency – only necessary information (graphics, words, sound) is presented. The principle of personalization – a conversational tone is used. Principle of student enthusiasm – students can control the rate.

These principles are used in the organization of students' research work in the form of web quests.

Web quest is a research-oriented activity in which all or part of the information for the student is taken from the Internet. There are at least 2 types of web quests. The educational goal of a short-term web quest is to gather information and gain knowledge. At the end of the short-term web quest, the student will process a large amount of information and use it for his/her own benefit. The short-term web quest is completed in one to three sessions. In the study of pediatric surgery, role-playing scenarios have been developed as a variant of the case method and short-term web quest.

The educational goal of the long-term web quest is to expand and improve knowledge. After completing the long-term web quest, the student will analyze a large amount of information, modify it and demonstrate it so that others can comment on it online or offline. A long-term web quest lasts from a week to a month. In order to achieve clarity of purpose for the student and efficiency of execution, the web quest should contain:

1) introduction, in which the deadline is set and background information is given;

2) feasible and interesting task;

3) a set of information sources necessary to complete the task;

4) description of the process of performing the task. The process should be divided into clear and detailed steps;

5) a guide to organizing the collected information;

6) a conclusion that gives the quest completeness, reminds students what they have studied, and possibly motivates them to continue research in other areas [3, p. 31–32; 4, p. 268–269].

Web quests are a group activity, but they can also be conducted alone, for example, in distance education or in the library. Web quests can be enhanced by motivational elements, such as game roles that encourage quest participants to communicate with each other and a scenario within which to work. The educational medical web quest helps to improve the organization of active cognitive activity, logical thinking, analysis, generalization, systematization and evaluation of information, increases motivation for self-studying, forms new competencies (development of computer skills, increase of vocabulary), realization of creative potential (development of research and creative abilities), and also improves the ability to use theoretically accumulated data from the point of view of a specific problem (clinical case), which is the basis of the daily work of a doctor.

References:

1. К. Г. Магрламова. Використання інтерактивних педагогічних технологій у професійній підготовці майбутніх лікарів у Великій Британії. *Сучасні інформаційні технології та інноваційні методики навчання у підготовці фахівців: методологія, теорія, досвід, проблеми*. 2017. Випуск 49. С. 128–129.

2. Clark RC, Mayer RE. E-learning and the science of instruction. 4th ed. Ruth Colvin Clark & R. E. Mayer, Editors. New Jersey: John Wiley & Sons; 2016.

3. Сапух Т. В. Применение технологии «эдьютейнмент» в образовательной среде университета. *Вестник ТГПУ (TSPU Bulletin).* 2016. 8(173). С. 30–34.

4. Л. В. Журавльова, Н. А. Лопіна. Значення освітнього веб-квесту як важливої складової практично-орієнтованої безперервної післядипломної підготовки лікарів. *Матеріали XIII Всеукр. наук.-практ. конф. з міжнар. участю "Актуальні питання якості медичної освіти (з дистанційним під'єднанням ВМ(Ф)НЗ України за допомогою відеоконференц-зв'язку)"*, 12–13 трав. 2016 р. : у 2 т. Тернопіль : ТДМУ, 2016. Т. 2. С. 268–269.