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ORGANIZATIONAL-PEDAGOGICAL CONDITIONS FOR THE DEVELOPMENT OF WEB-DESIGN COMPETENCE

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Abstract: *The latest advances in science and technology, along with production, also bring significant changes to the field of education, and the introduction of innovations creates the need to train future specialists to have the ability to adapt to modern conditions and to independently solve professional and life problems, and to teach them to approach them creatively. Therefore, today it is an important factor to develop the competence of future informatics teachers in web design.*

Keywords: *Web design, web competence, web space, graphic information space, project culture.*

INTRODUCTION

Currently, there is almost no field of human activity in which design is not used. Design as a phenomenon of social life that absorbs and adapts new knowledge and technologies to objects has become a broader concept, actively developing in all areas of human creativity, i.e. "project culture".

As a result of the rapid development of the Internet network, a new field of information technology, i.e. web design, has appeared and is developing rapidly. This field, in turn, is considered one of the dynamically developing systems that allow creating a graphic information environment for the creative work of artists, designers and specialists in the field of information technologies. This, in turn, set a task for higher education, including higher educational institutions of pedagogy, to prepare graduates who master web space technologies. That is why teaching web-design to future informatics teachers in pedagogical higher educational institutions is considered one of the important components of their professional training.

MAIN PART

In connection with the joining of our country's higher education institutions to the Bologna process, the educational process in them is being organized based on a competent approach as an important conceptual rule for updating the content of higher education. The concepts of competence and competence are used as the main unit of the updated content. In this work, a special professional competence, i.e. webdesign competence, will be formed in future informatics teachers. This competence is formed in the process of teaching the general professional subject "Web-design" [1, 2].

This describes the development of methodological support for teaching this subject, which allows for the formation of this competence, and the identification of new pedagogical pedagogical conditions for its implementation [3].

The main concepts of the research are as follows:

Methodological support - scientific-theoretical justification of the structure and content of the subject, determined on the basis of the requirements of DTS, in accordance with the educational program, as well as science and technology innovations, optimal educational and methodological complexes necessary for quality education of students, planning and creating didactic tools and methods of teaching [2].

Design (eng. design — project, drawing, picture) is a term describing the appearance of design activities aimed at forming the aesthetic and functional qualities of the environment of objects. [4, 6].

Web design is the design and development of the information architecture of the website with the help of web technologies in order to optimize and artistically formalize the program code for effective movement and use on the Internet. [8].

Competency in web design is preparation for independent design and implementation of the main components of website design [10].

During the research, the structure of modern web design including the following five components was determined (Fig. 1).

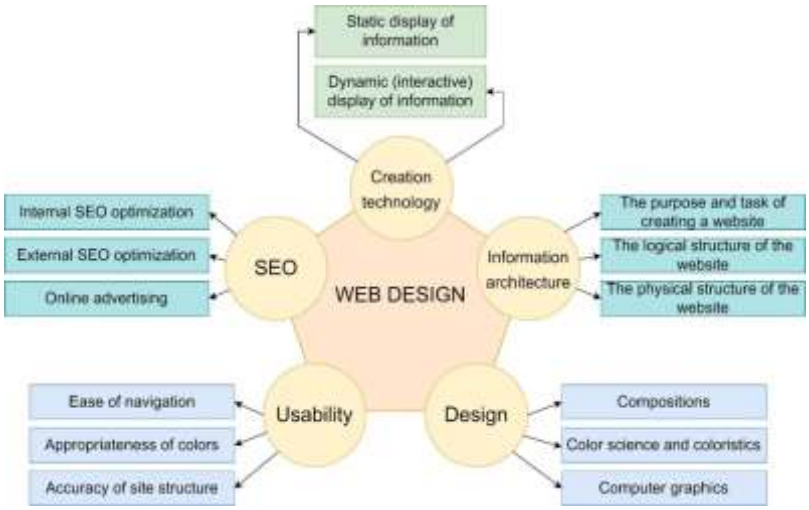

Figure 1. Modern web design structure

The information architecture of the website involves working with the principles of organizing information and acting on this structure to help the user quickly find and process the necessary information. It includes a description of the idea of the site, its purpose and mission. The logical structure of the site is a set of pre-designed hyperlinked thematic headings between the documents divided into sections and all pages of the resource. Physical structure - physical placement of files and folders published on the site.

Website creation technologies are divided into two main groups: static and dynamic. Static web pages are located on the server, and upon request, the server sends them to the browser unchanged. Dynamic pages do not exist in a predefined form on the server, but they are created using server-side scripts, which means that at the exact

same address, depending on different conditions, completely different appearance and content can be seen in the browser.

Ease of use is a microergonomic concept that defines the final level of ease of use of an object to achieve a specified goal. Usability of the website is the evaluation of the availability of the website by the potential customer. The evaluated qualities include page loading time, methods of finding the necessary information for users, optimality of the resource structure, design, ease of navigation, etc. Ease of use is an important condition for long-term activity on the Internet. Because if it is difficult for the visitor to use the resource or the information sought does not answer his main questions, he will leave the site [10].

SEO (eng. Search Engine Optimization) is the process of developing a website so that it appears in search engines. In it, the search engines improve the site not only technically, but also by the popularity of the website content, correct location, matching the search queries of users, as a result, the site pages are easily found [13].

Website SEO optimization is divided into three steps below: internal, external and traffic advertising. Internal SEO begins with identifying the semantic core, which is the keywords that attract the most visitors and are written into the website's code. Text, links, and other code structures are optimized so that search engines can successfully find them using keywords.

This structure of modern web design allows future informatics teachers to determine the following requirements for the field of activity related to the design and creation of websites. Such requirements may include the following:

- ability to create architecture and design of websites;

- ability to develop websites using client and server programs; - to know the main methods of website optimization and promotion.

These requirements, in turn, serve as a basis for determining the components of web design competence necessary for future computer science teachers to work on web design.

In order to effectively form web design competence in the study of the subject "Web design" in the field of computer science teaching methodology of higher education institutions of pedagogy, a methodological support model of specialist training including the following levels was developed.

- socio-pedagogical (social order, motivational-purpose component);

- scientific-theoretical (fundamentals of web design competence formation, axiological component, web competence components);

- educational-methodical (ontological, procedural-active, reflexive-evaluative components).

The socio-pedagogical level of the model is professional mobility for the preparation of qualified future informatics teachers who are qualified in the field of web design, competitive in the labor market, have web design competencies, are familiar with

web design technologies, are ready for continuous professional growth and implies the existence of a social order.

RESULTS AND DISCUSSION

The scientific-theoretical level of the model is the requirements of the state educational standard of higher education, the development trends of web design technology, the changing trends of the labor market requirements, the models and principles of professional training, the systematic, person-oriented and competent approach. - design describes the basics of competence formation. The mentioned elements affect the axiological component of the training of future informatics teachers, which focuses on the system of values and attitudes in the use of web technologies in the professional activities of students. At the scientific-theoretical level, we determine the content of the subject "Web-design", which allows us to form web-design competence, as consisting of the following parts: design, design, technology. Each of them, in turn, consists of theoretical, practical, laboratory training, independent education and supervision. (Table 1)

The educational-methodical level of the model includes the following three components.

The ontological component represents the content of the modular subject of general professional science "Web-design". At this stage, in the conditions of the implementation of a competent approach, the field of knowledge characterized by the transformation of the subject-thematic structure of the educational content into a systematic activity is taken into account. The training of future informatics teachers meets the level of development of web technologies and the requirements of the State Education Standard.

Table 1 Content structure of "Web-design" science

Projective	Artistic	Technological
Defining the goals, functions, and audience of the website. Creation of information architecture (logical and physical structure) of the site. Use of usability principles in website design	Understanding of composition, color science and coloristics. Creating options for block compositions, color schemes for the website. Using computer graphics to create a website design	Using static and dynamic technologies to create a website. Basic principles of SEO optimization

It aims to develop systematic thinking, design, research, technological skills, creativity, independence and activity in the field of creating websites. This goal can be achieved by using appropriate forms, methods and tools for the formation of webdesign competencies in future specialists in the field of web-design, including future informatics teachers.

The process-active component is based on such principles as variability, scientificity, convenience, demonstration, activity, systematicity and sequence, individualization of teaching, and professional orientation.

In the reflexive-evaluative component of the model, the low level of webdesign competence formation provides absolute compatibility with the content of DTS and forms the basic capabilities of future specialists, including future informatics teachers.

The secondary level allows the future specialist to engage in active professional activity and in terms of content satisfies the employer's need for this specialist, and the evaluation criterion determines the level of readiness for reproductive activity with elements of creativity.

A high degree should meet the modern requirements of the employer for a specialist, which will allow you to successfully work within the framework of the individual requests of the employer, to solve non-standard tasks depending on the specifics of the activity.

An important role in the formation of web-design competence of future teachers is played by independent work from the general professional subject "Webdesign". The result can be included in the graduate's portfolio, which allows the employer to provide more complete information about the qualifications of the future specialist.

The main goal of independent work is to strengthen the theoretical knowledge and practical skills acquired in the study of the general professional science of "Webdesign". Within the framework of this work, the student must demonstrate knowledge of the theoretical foundations of web technologies, the ability to justify the feasibility of designing a website, including various design components; must have skills such as the ability to use client and server programming technologies.

CONCLUSION

The result of the implementation of the methodical support model of the general professional subject "Web-design" in pedagogical higher education institutions is the training of a specialist with developed web-design competence, who is competitive and in demand in the labor market.

Thus, the introduction of a methodological support model for training future informatics teachers in the field of web design provides the following advantages in the formation of web design competence: modeling activities close to the conditions of a web studio. increase motivation for the winter, provide a person-oriented approach to training, form a level of knowledge that corresponds to the needs of the market. This allows the student to adequately assess his capabilities and achieve the necessary level of professional independence.

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