

METHODICAL SYSTEM OF FORMATION OF WEB PROGRAMMING COMPETENCIES OF GENERAL SECONDARY SCHOOL STUDENTS

Turayev Ruziboy Norovich

(Lecturer at the Pedagogical University of TerSU, turayev.ruziboy@bk.ru)

Annotation: The article deals with the methodological system and history of teaching, the structure of the methodological system, the manifestation of the methodological system in the pedagogical system, teaching methods, teaching methods, reproductive methodological system, dogmatic methodological system, methodological system development, programmed methodological teaching system, methodological systems based on problem-based learning. The urgency of the problem of teaching secondary school students on the basis of web-programming was discussed.

Keywords: Training methodical system, teaching methods, methodical system, programmed, Web-programming, competence.

The concept of a methodological system of teaching science was introduced in 1975 by A.M. Pyshkalo: "a methodological system is a component that includes learning objectives, teaching content, teaching methods and forms" [1]. A.M. According to Pyshkalo, any theoretical model of the education system can be characterized by five hierarchically interrelated elements: socially ordered goals, specific specific programs, methods, organizational forms, and content defined by applicable standards and programs for teaching aids. The study of the educational methodological system was carried out using the scientific principles and methods of systems theory, which allow the author to draw certain conclusions. The functioning of a methodical system, according to A.M. Pyshkalo, is subject to laws related to the internal structure of the system when changes in one or more of its components lead to changes in the whole system and relevant laws, with the external connections of the system. works "[1].

Although the concept of "methodological system of teaching" appeared in the second half of the 20th century, the process of forming scientific methods as independent scientific disciplines has come a long way.

At the same time, it is necessary to emphasize the structure of the concept of the methodological system of teaching and the expansion of this content. In particular, N.V. and emphasizes the methodological function [2].

The methodological system plays an important role in the pedagogical process. It is manifested in the following:

- The educational process will be able to plan on a scientific basis due to the methodological basis;
- The learning process is based on the unity and interaction of theoretical and practical information;
- Opportunities and versatility of curricula;
- Variability in the choice of the pace of development of educational programs;
- Development of activities and ensuring adequate independence of students;
- Complex work that ensures the implementation of both independent and team activities;
- The use of technically oriented textbooks in the educational process;
- Study of various disciplines on the basis of an integrated approach to education.

Methodical teaching system There are various teaching systems [3]. The same tool can be used in different teaching methods and forms. Examples of these systems are:

1. Reproductive methodological system. This occurred during the period of the formation of society, when education was chaotic, inconsistent and unsystematic. The system was based on the use of copying and teaching methods and was aimed at teaching the basic skills necessary for modern life. The children observed the adult's behavior, copied it, and developed certain habits.

2. Dogmatic methodological system. The existence of this system was relevant in the Middle Ages, when education focused on the study of truths and theories through a religious prism. Education was under the influence of the church and had no other direction. Oral teaching methods were used at that time. Simple

reading and memorization were used and in a clear form, with theory, date, events, facts repeated later. Reporting methodical system. Nowadays, education was focused on imparting ready-made knowledge. This includes a variety of oral teaching methods, reading stories, lectures, reading texts, visual demonstrations, problem solving and exercises. Thus, an exchange of scientific experience accumulated throughout the history of mankind took place. Information learning has a positive effect on the development of thinking processes, memory, imagination.

3. Development of methodological system. This system is aimed at developing the creative side of the individual. Helps shape abstract thinking. There are two main types of developmental education systems: Zankov and Elkonin-Davydova. They are based on the development of skills in the application, analysis and reflection of deductive methods.

4. Programmed methodical educational system. Such training is done by creating programs based on computer technology or paper-based textbooks, maps, diagrams, and so on. Such exercises have a clear logic of implementation. Learning materials are provided in a dimensional volume and based on a specific algorithm to control its transmission, consolidation and assimilation.

5. Methodological systems based on problem-based learning. In this case, the lesson is done by asking the teacher and students to solve the problem independently. All training materials are presented in a problematic manner. Teaching methods can include discussions, role-playing and business games, and more.

The cognitive-operational component of competence in the field of Web programming reflects the level of mastery of the theory of Web programming and the ability to apply this knowledge in professional activities. The degree of component formation is determined by features such as the consistency of knowledge of general secondary school students in the field of Web programming. This component has features such as stability, efficiency, knowledge mobility, ability to master knowledge in the field of Web programming, use of this knowledge in solving professional problems. The main task of this component is to create the conditions for professional solution of problems in the field of Web programming [4] [6].

Thus, based on this position, as well as the statement that the component under consideration should be related to the discipline of access to Web programming, we show this as a result of mastering the organizational component of competencies in Web programming [5]. Web programming school students:

- 1) Know the content of the basic concepts in the field of Web programming;
- 2) Understand the basic principles of Web programming, know the terminology of this paradigm;
- 2) Knowledge of HTML and CSS operators and management structures, Web programming tools used in this environment;
- 4) to develop an algorithm to solve the problem at the appropriate level;
- 5) Experience developing, modifying, testing and using Web applications using the Python visual environment.

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