

FORMATION OF GENERALIZED CHEMICAL SKILLS IN THE USE OF INFORMATION MODELS IN CHEMICAL SCIENCE

Jobborov Farkhod Burievich.

Annotation. The article presents the following in models of symbolic chemical training: demonstration; structure and consistency; durability; scientific; the importance of the principles of connection between theory and practice has been analyzed.

Keywords: educational, symbol, model, didactic, function, general methodological, principles.

Introduction. Chemistry identifies levels of use of chemical skills in the use of information models as a multi-functional means. Chemical information models are design and related to the implementation of the teacher. This is determined on the one hand, on the occasion of the "teacher-meaning", on the other hand, according to the "read-content".

Literature review. The design of information models in chemistry will be discussed within the framework of pedagogical design. This includes a meaningful, methodological, logistical and psychological project of the idea of implementing the pedagogical task performed empirically and scientifically, experimental-insistent and scientifically. The description of the project of chemical information models to form general chemical skills is based on a number of design work.

Scientific novelty of the article. According to the characteristics of the pedagogical design process, the didactic project of the relationship between teachers and students in the insulation of chemical information models in the educational process:

1. The basis of the implementation of information models in the subject of chemistry on the basis of theoretical and experimental psychological and pedagogical analysis of theoretical process.
2. Development of a teacher and a teaching collection or a customized curriculum for the teacher and the reader on chemistry.
3. Technological maps, themes, modules of training.
4. Systematic Bank for the School Chemistry Course of Information Models in Chemistry.
5. Includes a system of methods of monitoring and repairing the effectiveness of the project.

Analysis and results. In the methodological work of teachers and methods [2], we bring the stages of teacher design activity in the formation of generalized chemical skills in chemistry:

1. Substantiation of the purpose of use as a multi-functional means of formation of generalized chemical skills in the teaching of information models in the subject of information models.
2. Determining criteria for the formation of generalized chemical skills. Predict potential changes in the results of education.
3. Cleaning generalized chemical skills formed in the chemical chemistry course.
4. To illuminate the semantic structure of chemical skills to implement the general chemical skills in students or in other words, determine the speed and activity of the chemical skills formed.
5. Designing generalized chemical skills in chemistry as structural and meaningful analogues.
6. Construction of general chemical skills through the rapid generalization, as well as the system of practice-oriented educational training chemical tasks.

To explore the results of design of information models in chemistry, we can use the following principles based on the rules of the systematic approach [3]:

The principle of unit. Any chemical information models should also be considered as an independent information system and the element of the general education process.

The principle of connection. In each stage of the educational process in creating any chemical news models, it should be used as one of the formation of the activities of the activities of the implementation of chemical skills, to formulate problematic situations from it.

Modular construction principle: It is important to consider the process of using information models in the teaching process as a set of interrelated semantic models.

The efficiency of separate chemical information models as its system is ensured by the implementation of the following principles [5].

The more effectiveness of information in chemistry will be the higher its integrity and systematization. Inationality, the change of one element is understood in the interrelation of all elements of the model when it leads to changes in its other parts and the whole model generation in general. The strength of the logical and conceptual ties between the elements of the system is the strength of the logical and conceptual ties between the elements of the system as a systematization of the information model and their interdependence. The effective implementation of information models in chemistry depends on the compliance of the necessary educational process. The information model is characterized by the compliance of the structure and content of the educational process in the level and nature of the educational process. At the same time, in some pedagogy conditions, the information model that is successful may be transferred to other conditions may be ineffective. It should be noted that the most effective use of information models is achieved only in the conditions they are created.

Art and compositionalization of information models in chemistry should be taken into account in the creation of a graphic tool. The experience of designing graphic means of providing experimental ergonomic research and graphic tools for the provision of various types of information will allow a number of principles for chemical models.

Principle of compaction. The context of the chemistry should contain only elements needed to provide important information to the observer, to understand the meaning of its meaning. The effects of the main elements of the model to the main elements of the model are achieved through more successful, economical methods, not by removing unnecessary things, not by removing unnecessary objects, but not to remove unnecessary objects.

The principle of generalization and harmony. Chemistry does not require the models into excess parts. The form should be rated rationally. In addition, the whole information model must be combined with the characters or symptoms that represent the same object or phenomena and it is graphically solved.

The principle of using the usual imagination and stereotypes. In information models in the field of chemistry, it is important to codify the content of the learning material and the items and the items they have identified and the events, as well as stereotypical reactions on some characters and stereotype reactions.

Conclusion. The design of information models in chemistry means the need to develop a special methodology that provide students with the system of teaching chemical tasks, students using their generalized chemical skills in educational and educational activities.

References:

1. Герус С.А. Методика формирования обобщенных умений по химии на основе алгоритмизации и компьютеризации обучения: автореф. дис.... канд. пед. Наук.-СПб, 1994. - 18с.
2. Моделирование как метод научного исследования (Гносеологический анализ). - М.: Изд-во МГУ, 1965
3. Jabbarov F.B. Didactic functions of models of chemical training marks.Uzmu messages. - Tashkent, 2020. - What? 54-58 .
4. Jabbarov F.B. Structural-meaningful analysis of information models of chemical textbooks in the development of Chemical Education. Republican scientific-practical conference" topical issues of application of alternative forms of professional development and retraining of employees of the system of public education " Tashkent.2021. 56-B.

5. Gayratovich, E.N. (2019). USING VISUAL PROGRAM TECHNOLOGY METHODS IN ENGINEERING EDUCATION. European Journal of Research and Reflection in Educational Sciences Vol, 7(10).
6. Gayratovich, E.N. (2021). SPECIFIC ASPECTS OF EDUCATIONAL MATERIAL DEMONSTRATION ON THE BASIS OF VISUAL TECHNOLOGIES. International Engineering Journal For Research & Development, 6(ICDSIIL), 3-3.
7. G'ayratovich, E. N. (2022). It Is A Modern Educational Model Based On The Integration Of Knowledge. Eurasian Scientific Herald, 5, 52-55.
8. Ergashev, N., Meyliqulova, M., Xamitova, R. N., & Namozov, D. (2021). ANALYSIS OF COPYRIGHT SOFTWARE CREATING VISUAL ELECTRONIC LEARNING MATERIALS. Интернаука, (18-4), 24-25.
9. Xolmurodov, A. E., & Ergashev, N. G'. (2021). SPECIAL ASPECTS OF DEMONSTRATION OF EDUCATIONAL MATERIAL BASED ON VISUAL TECHNOLOGIES. Современное образование (Узбекистан), (7), 29-34.