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Improving the scientific and methodological support for teaching students the construction sciences based on digital technologies

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Annotation: This article deals with the problem of Teaching building sciences in accordance with modern requirements, the creation of methodological support based on modern digital technologies, the advantages of improving the teaching process to the level of digital support are given.

Key words: Methodological complexes, methodological support, modern technologies, digital technologies, design, calculation works, methodological complexes

Undoubtedly, one of the urgent problems in modern pedagogical activity is the creation of methodological complexes that meet modern requirements for students of all directions. Because the available sources have partially lost their reliability and do not correspond to modern capabilities and technologies. Of course, all created complexes, books, sources, etc. are based on scientific and educational books that have been available for a long time, but the task of teachers is to change and improve them, introduce modern technologies, methods and forms of teaching, simplify the perception of information by students in the creation of modern scientific and methodological support.

In the process of training specialists, the importance of independent work increases as a form of training designed to provide the necessary experience of self-education.

The experience of self-education is necessary for the high-quality implementation of information activities, which are associated with the selection, development and improvement of new technologies. Thus, independent work in the training of specialists in the group of information-oriented specialties plays an important role. The designated group includes specialties for which information activity as part of professionally significant functions is the leading activity.

Accordingly, independent work of students should be equipped with scientific and methodological support that is substantiated and verified in practice. The leading function of the scientific and methodological support of independent work is the transfer of spontaneous extracurricular work of students into the mainstream of systematic, controlled and self-managed educational work.

The psychological and pedagogical literature reflects certain aspects of scientific and methodological support aimed at designing and implementing students' independent work.

A study of the training of personnel in the construction industry shows that the available literature and methodological support are outdated, and in many respects do not meet modern requirements. Since modern advanced technologies are used in the most practical area of construction, it is necessary to take into account the training of students to work on these technologies when training personnel. This is one of the problems of scientific and methodological support, and the second problem is that methodological manuals, work programs do not include or are partially based on interactive teaching methods, that is, the use of digital technologies.

The solution to these problems is to turn to foreign methods and methodological support based on modern technologies and create modern literature adapted to our requirements.

In order to implement the above, research is being carried out on the literature on training personnel for the construction industry and scientific personnel from leading foreign countries of the world.

In the work of Hakobyan Norayr Grigoryevich, "An adaptive system for managing project activities in construction based on digital technologies", it is said that modern technologies and their application both in the field of education and in the field of construction facilitate work, speed up

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design time, and facilitate design work on the project and not only, there are still a lot of advantages of these technologies.

The use of information modeling systems is still at the level of applying local solutions that do not have a breakthrough character and do not significantly affect the quality of the developed organizational and technological solutions both at the design and construction stages.

Also, the relevance of this topic is that the digitalization of the learning process allows students to perceive most of the information received, rather than the usual outdated teaching methods. With this method, the perception of information increases from 40% to 70%.

Thus, a modern teacher of building sciences is required not only to teach students on the basis of available literature, but also to create individual materials using digital technologies, which should also be collected in a common methodological complex.

List of used literature:

1. Tatarinov T. Digitization of the construction industry: Russia's place in global trends on the example of construction control // CAD and Graphics. Architecture and construction. - 2018. - No. 2. – P. 11–15.
2. Travush , V.I. Digital technologies in construction // Building Sciences - 2018 - No. 3 - P. 107-117.