METHODOLOGY OF DEVELOPING PRACTICAL KNOWLEDGE OF STUDENTS IN THE EDUCATIONAL PROCESS

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Annotation: *The article deals with the development of students' practical knowledge in the educational process, the implementation of technological exercises in practical and laboratory work and the formation of practical skills and abilities of students with their help.*

Keywords:*Practical, laboratory, technological exercises, skills, qualifications, methods.*

In the process of education, the development of students' practical knowledge is focused on the development of general pedagogical concepts and basic pedagogical skills to solve practical problems and situations, moving them to a new situation [1].

The role of practical training is important in the development of practical knowledge. It is advisable to use the following methods in conducting practical training:

- fulfillment of technological tasks;
- Development of pedagogical and technological conditions;
- modeling of generalized technical schemes;
- find the necessary information;
- Independent (additional) knowledge.

The main essence of the practical training is that students independently perform various tasks or conduct experiments on the topic. Forms of practical training include: designing various pedagogical and technological situations, solving pedagogical and technical problems, completing assignments, working with technical schemes, participation in discussions with teachers, etc.

The main activity of students in practical and laboratory work is technological exercises. Technological exercises consist of the repetition of certain actions in order to form and strengthen practical skills and competencies. The following requirements are set for the implementation of exercises in industrial education: students perform conscious and purposeful technological exercises; based on the production methodology of the exercise, the exercise should be systematic, consistent, continuous and repetitive; students must work independently and their skills must be constantly evolving [5].

There are a number of didactic requirements for technological exercises as a method of education:

- Technological exercises are based on the conscious activity of students. Consciousness plays an important role in the formation of practical skills and competencies;

- Technological exercises and their elements are placed in an order from easy to complex. In different labor processes the same element methods, exactly the same actions are common, but the processes themselves differ in some difficulty;

- Students should control their labor movements during technological exercises. In this case, great importance is attached to the accuracy of the initial preparation.

Performing technological exercises is a learning process that reinforces the acquired knowledge. These exercises will have a specific meaning in each general and specialty subject. In the process of performing technological exercises, the student takes an active part, and all his sensory organs are involved. The pedagogical possibilities for increasing his level of memory are further expanded [3].

Types of technological exercises: reading, writing, speaking, thinking, calculating, performing practical actions, building, painting, playing music, solving problems and tests, computer work, using tools, machines, other technical means in the field, on the farm, in construction work, do household chores and participate in sports exercises, business games, competitions, contests, read and draw sketches, diagrams.

Since the general and specialized sciences have a technical basis, it is important to read drawings, draw diagrams. In order to teach students to read and draw drawings, it is first necessary to acquaint them with the graphic elements, to develop in them the skills of reading drawings. Technical drawings, sketches and working drawings are used as technical documents in the lessons.

Two ways of teaching to read drawings are known. In the first method, a list of questions that students must answer is attached to the chart. The questions are structured in such a way that the student has to study the drawing and analyze it in order to find the answer. The second method is based on the study of the drawing and the analysis of its content on the basis of a certain order and plan, which consists of the following stages:

- general acquaintance with the drawing;

- basic text of the detail and dimensions; read the name of the detail, material, image scale, dimensions;

- images; reading image classification, general shape of detail, shapes of detail elements;

- dimensions, symbols and inscriptions; reading the dimensions and limits of their variation, surface roughness, technical requirements and instructions;

- to be able to clearly see the required part of the complex drawings given on the computer, to study the structure of the detail using movements and animations.

Students should also be familiar with the symbols used in drawing when mastering drawing reading skills. This is very important when learning to draw drawings.

Drawing sketches in workshops usually consists of sketching. Learning to draw drawings begins with simple tasks, such as measuring the details and putting these measurements on a finished drawing. For this method of teaching drawing to be effective, it should be recommended to make additions to the drawing due to changes in the shape

of the detail as a result of processing, for example, to reflect the drilled groove and other changes in it. In the following tasks, students are given the task to get acquainted with a simple detail and its drawing, and then independently draw a drawing of this type of detail [2].

Since such assignments are of an educational nature, one should not dwell too much on performing them. As students create drawings used in practical work, their activity and interest in assignments will increase. These drawings are especially necessary in the modeling process, but in doing so, students face certain difficulties due to their lack of sufficient knowledge and skills in graphics and design.

Students will have to learn more about machines, machine parts and mechanisms, and their kinematic schemes. Great emphasis is placed on introducing students to the kinematic schemes of machines, as it is easy to show the general aspects of machines that differ in structure and function through these schemes. Technical modeling and design methods are often used in training workshops. Use of various organizational forms and methods of training in training workshops; providing technical information; implementation of skills and competencies in research and practical activities; control of technical knowledge, methods of work, quality of work performed; formation of aesthetic taste and skills of work culture, ability to work independently; Certain conditions must be created for the solution of creative problems of design and technological classification, compliance with the requirements of labor protection [4].

In technical modeling, a unique, expensive, generally cost-effective model of structures, aggregates, machines is created. Typically, the dimensions of the model will be much smaller than the original and therefore cheaper. The model may differ from the original in terms of structure, but the physical phenomena that actually occur during its operation must be observed.

The process of technical modeling consists of three main stages: preparation of technical documentation (specifications, drawings, technology) for modeling, modeling and testing. Therefore, first of all, it is necessary to consider the creation of convenient models to involve students in drawing, creating a technological process, preparing model details and assembling them.

Working with textbooks is a very easy and convenient way to develop students' practical knowledge in the learning process. All learners should be well versed in working with textbooks. Textbooks can be understood as textbooks, manuals, technical literature, data manuals, and so on.

Indeed, if from time to time in the course of the lesson, assignments are given to independently study the material on textbooks, manuals, technical literature, it will certainly serve to develop students' skills and abilities to work with textbooks. When students are given too many homework assignments to work independently with a textbook, this leads to stress and, as a result, their interest in science decreases. Therefore, the teacher should work with and familiarize with textbooks and other textbooks, to

develop skills and abilities to work independently at all stages, ie in the process of explaining a new topic, increasing knowledge, checking the completion of homework.

Distinguishing the main from texts, pictures and visual aids, tables and maps in the development of students' practical knowledge in the educational process; identify logical connections and dependencies in data acquisition; compare the studied events, summarize and draw conclusions on one or more parts of the textbook, explain new words and terms on the topic, study a separate topic in the textbook, plan the textbook, compose theses, create technical problems using the textbook, , the acquired skills and abilities can be improved with the help of textbooks and other types of educational literature through the organization of educational activities during the lesson, in extracurricular activities.

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