

**IMPROVING THE METHODOLOGY OF PROVIDING THE CONNECTION OF  
STUDENTS' THEORETICAL AND PRACTICAL KNOWLEDGE THROUGH THE  
SCIENCE OF DRAWING GEOMETRY**

**Jumayev Isroil Omandovlat o'g'li**

Chirchiq davlat pedagogika universiteti Muhandislik va kompyuter grafikasi kafedrası katta  
o'qituvchisi

[jumayev.isroil@cspu.uz](mailto:jumayev.isroil@cspu.uz) +998909022793

**Abstract:** This article provides a deeper explanation of the science of drawing geometry by connecting theoretical and practical knowledge.

**Keywords:** theoretical, practical, point, constructive, integration, interactive, methodical, innovation, straight line.

The effectiveness of the educational process depends on ensuring the compatibility of the theoretical and practical parts of the taught subjects. Especially in technical and engineering subjects, for example, drawing geometry, it is very important to connect theoretical knowledge with practice. This article talks about how to ensure the connection between theoretical and practical knowledge in the process of teaching drawing geometry and how to improve methodological approaches in this regard.

**Drawing is a science of geometry and its place**

Graphical geometry is the study of dimensions, shapes, positions, and their interrelationships, and provides the mathematical foundations needed for most technical fields. Studying it requires not only the acquisition of theoretical concepts, but also the formation of practical skills. Knowledge of drawing geometry is essential in engineering fields such as mechanical engineering, construction, design, and computer graphics.

**Relationship between theoretical and practical knowledge**

Theoretical knowledge mainly includes formulas, rules, theorems and definitions. Applied knowledge is focused on applying this knowledge to real-world problems. Connecting theoretical and practical knowledge in drawing geometry not only deepens understanding, but also helps students acquire effective skills in the studied subject.

For example, in theory, in drawing geometry, it is important to know points, straight lines, planes, and the relationships between them. But in order to apply these concepts in practice, the student must develop the skills of drawing, modeling and visualizing many geometric shapes. If theoretical knowledge is mastered correctly, it will be easier to apply it correctly in practice.

**The method of ensuring the connection of theoretical and practical knowledge**

In order to ensure the connection between theoretical and practical knowledge, several methodological approaches can be used in the teaching process.

**a) Integration.** Theoretical and practical topics can be studied together in the curriculum. For example, after giving theoretical information about geometric shapes, students should be directed to

draw them in practice or model them using computer programs. It shows students how to put theoretical knowledge into practice.

**b) Problem-oriented teaching.** Giving students assignments focused on solving real-life problems is effective in turning theoretical knowledge into practical skills. For example, in drawing geometry, students use theoretical knowledge when creating engineering projects, drawing or designing models of real objects.

**c) Interactive methods.** Organizing group discussions and practical exercises among students, as well as learning various graphic programs will further develop their practical knowledge. CAD (Computer-Aided Design) programs are studied in many educational institutions. These programs allow you to quickly turn theoretical knowledge into practical skills.

**d) Constructive method.** Using a constructive approach to strengthening theoretical knowledge encourages students to actively participate. For example, students develop independent projects to see how theorems in sketch geometry are applied in practice.

**e) Problems and tests.** Conducting practical problems, tests and trials, helps to assess students' knowledge and prepare them to solve real problems. In this process, it is effective to give various tasks and simulations related to drawing geometry to assess practical skills.

**Methodological improvement in drawing geometry.** In order to ensure the connection between theoretical and practical knowledge in the teaching of drawing geometry, it is necessary to make some improvements:

**Introduction of innovative technologies.** 3D modeling and virtual reality technologies should be included in the educational process in order to study the modern approaches of drawing geometry science to practice.

**Project teaching.** Encourage students to develop practical knowledge through several small projects. This method connects the theoretical knowledge students are learning with real problems and helps to form practical skills.

**Integration and interdisciplinary teaching.** Integrating drawing geometry with other subjects, such as mathematics, physics, or computer science, can be more interesting and effective for students.

This method not only teaches students about geometric concepts, but also how to connect these concepts to other subjects.

Thus, we can come to the conclusion that improving the methodology of ensuring the interrelationship of theoretical and practical knowledge increases the effectiveness of students' knowledge. The practical application of theoretical knowledge in the study of geometric geometry deepens students' understanding and helps them solve real-life problems. Therefore, we believe that teachers and educational institutions can bring their students' theoretical and practical knowledge to a perfect level by introducing these methods into their educational system.

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