



**Digital Technologies Conditions Academic High School of Students
Spatial Imagination Development**

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Abstract: By using ICT in the classroom, teachers can help students develop their computer literacy, their interest in learning about spatial figures in the lesson, their spatial imagination, their control because the lesson can be conducted in both directions, the interest of students with limited knowledge in the lesson, and the avoidance of difficulties when evaluating students. In order for pupils to develop into mature specialists in their future professional endeavors, the aforementioned credentials are crucial.

Key words: ICT, classroom, computer literacy

Academic in lyceums geometry science in education new pedagogical from technologies or information technology use for the following programs : HTML editors such as Macromedia Flash, Microsoft Front Page and such as Microsoft Word, Adobe Photoshop, Corel Draw software from tools use can _

Information technologies using geometry science read , to the following is achieved :

- electron study _ manual of possibilities using , to students the subject complete explanation opportunity increases ;
- theirs knowledge , skills _ and qualifications increases ;
- mobile images and animations of students imaginations in expansion important role plays _
- practical to work , that is example and issues in solution , vital examples to bring , readers in the middle question and answer to transfer more time separated ;
- of students creative thinking ability is formed ;
- students _ from class positive a lesson they will go to class relatively interest increases ;
- in students spatial the imagination development , logical thinking , geometric measure and make practical methods learning opportunities gives _

Geometry in their classes information from technologies use in students spatial imagination , geometric issues in solving practical methods learning opportunities gives _ The main thing is information technologies - spatial of figures views _ and they are about information reading ability develops , independent reading and to learn chance creates _ So academic _ _ in lyceums information technologies through new pedagogical of technologies introduction , reader _ and teacher their activities _ in class place and duties sharp to change take will come With that together of the lesson efficiency increases , of students spatial imagination develops and them independent respectively spatial figures about information to master take will come Spatial bodies sections in describing mobile computer from animations use one series advantages has _ Active computer

animations in creating the most a lot used the program is a Microsoft company by work developed MsPowerPoint is a program . Such programs Also add Adobe Flash to the type can _ From these programs in use to the students many feet and their simple sections to make about electron demonstrative weapon using information is given and one how much examples together solution will be done . Lesson from the multimedia possibilities during using the Power Point program through prepared electron demonstrative weapons using demonstration reached will go Regular many _ Regular many two condition satisfaction must : a) all legs - regular and mutually peer from triangles consists of ; b) all polygonal corners mutually equal to It follows from the first condition that the sides of a regular polyhedron consist of polygons with the same name. From the second, it can be seen that all the polygonal angles have the same name.

For example , the cube all sides , squares, all polygonal angles are three-sided. The question arises how many polynomials exist that satisfy these conditions. Answer: it is stated that there is no polyhedron consisting of regular polygons with sides greater than six. Academic lyceums mathematics in the program geometric material is large takes place . The main goal of studying geometric material is to create a complete system of ideas about the mutual situations of straight lines and planes in space, spatial bodies, their elements, and some of their properties.

Spatial images express the mutual relations of real objects, that is, the properties of three-dimensional space. Two types of spatial representations are recognized: memory images and perceived images. Spatial representation in memory represents the images of objects as they were previously perceived. A spatial image formed by perception differs from an image in memory in that the given material is a new image formed after mental processing. For example, students imagine stereometric figures according to its verbal description, or according to the conventional description of this figure. The images in the imagination are formed on the basis of the images in the memory. Students rely on their previous knowledge and experience to create such images. However, imaginary images are characterized by the fact that they are created through images in memory.

The issues related to the perception of space and the formation of spatial ideas are reflected in the scientific research of foreign psychologists BGAnev, LLGurova, VPZinchenko, ENKabanova-Meller, AMLeontev, BFLomov, SLRubinshtein, EFRybalko, NFTalyzina, FNShemyakina, ISYakimanskaya and others.

In the process of teaching geometry in academic lyceums, it is important to develop both forms of imagination, memory and imaginary images. First of all, it is necessary to determine the level of development of students' spatial imagination. This can be achieved by performing tests (tasks) that require students to work hard on their spatial imagination.

It is known that the ability of spatial imagination is developed in different degrees in students due to objective and subjective reasons. This, in turn, has a negative impact on the acquisition of new material and the organization of the lesson process. In order to eliminate this deficiency, first of all, it is necessary to determine the level of students' spatial imagination and to focus the lessons on developing their spatial imagination. Because spatial perception is one of the leading factors in effective learning of geometry.

Geometry and its teaching are of great importance for specific subjects of academic lyceums. As a result of studying this subject, students develop their spatial imagination, which is necessary in life, their logical thinking expands, their thinking develops, and it serves as a basis for mastering some concepts used in drawing, physics, astronomy, and geography.

There are many ways to develop students' spatial imagination. One of these tools is to solve stereometric problems of fabrication. Different geometric positions in space and their application to solving problems also develop students' spatial imagination. Especially in spatial figures, drawing by

changing its appearance, distance between elements, angle, additional drawings, filling issues also develop spatial imagination.

The system of preparation for the development of students' spatial imagination was developed and described in three stages (see table 1.1).

Table 1.1 .

System of development of students' spatial imagination

No	Stage	The content of the work to be carried out
1.	I - determination of the level of development	<ul style="list-style-type: none"> - formation of creative motivation to develop students' spatial imagination; - getting to know the specifics of professional activities related to the development of students' spatial imagination; - to realize that creative approach is an important component in the development of students' spatial imagination; - assimilation of information on formation of intellectual education and scientific outlook of students during the educational process.
2.	Stage II - formation of tasks aimed at developing spatial perception	<ul style="list-style-type: none"> - to decide on a positive attitude to the future professional activity; - intensive formation of creative literacy, creative skills and abilities to develop students' spatial imagination; - To increase knowledge by mastering "Algebra" and "Geometry" subjects; - determining the competence to develop students' spatial imagination based on the acquisition of knowledge in social-humanitarian and socio-economic, natural sciences, general professional sciences, specialized sciences, additional science blocks; - mastering creative qualities aimed at working with academic lyceum students, determining directions of professional development based on diagnostic results.
3.	III - development based on a creative approach	<ul style="list-style-type: none"> - finding stable motives for developing students' spatial imagination; - goal-oriented application and activation of creative literacy, creative skills and abilities aimed at solving educational and professional tasks; - practical application of pedagogy, psychology, teaching methodology and creative forms, methods, tools and technologies of working with academic lyceum students and correction of their activities.

Also, the phrase "formation and development of spatial imagination" should be created in the educational process in order to create favorable conditions for the development of spatial imagination in students. For this, it is necessary to study the psychological characteristics of students. In addition, it is important to study the degree of formation of spatial perceptions in them and take measures to develop it in the future on this basis.

The issue of creating a modern image of a teacher is the basis of the reforms implemented and ongoing in the field of education in our country. For this, the need to work based on the world's advanced concepts of education naturally comes to the fore. According to advanced foreign experience and technologies, the task of educating and developing students with developed spatial imagination is set to form teachers as mentors, leaders, and advisors for their students.

Conducting classes with the use of ICT creates the following skills in students: develops computer literacy, increases their interest in learning about spatial figures in the lesson, develops students' spatial imagination, increases their control as a result of two-way conducting of the lesson,

increasing the interest of students with low knowledge in the lesson, avoiding difficulties in evaluating students. The above-mentioned qualifications are important for students to become mature specialists in their future professional activities.

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