



## Current State Of Talent Development Of Talented Students Based On Biological Sciences (Problem Teaching Technology)

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**Abstract:** This work presents information about the methods and possibilities of using pedagogical technologies in the teaching of biology. The role of technology in the development of talent of gifted students based on biological science is highlighted.

Key words: Pedagogical technology, conceptual, procedural, modular technology.

## Iqtidorli O'Quvchilarni Biologiya Fani Asosida Iqtidorini Rivojlantirishning Hozirgi Holati (Muammoli O'Qitish Texnologiyasi)

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**Annotatsiya:** Ushbu ishda biologiya fanini o'qitishda pedagogik texnologiyalardan foydalanishning usullari va imkoniyatlari haqida ma'lumotlar keltirilgan. Iqtidorli o'quvchilarni biologiya fani asosida iqtidorini rivojlantirishda o'qitish texnologiyalarning o'rnini yoritilib berilgan.

Kalit so'zlar: Pedagogik texnologiya, konseptual, protsessual, modulli texnologiyasi.

### **Introduction.**

Problem-based teaching technology - we believe that it is important to identify talented students and train them in this technology, because the transformational activity of students can be carried out most effectively in the



process of performing problem tasks. Experience shows that solving problems of controversial content ensures a high level of cognitive activity of students. The methods of problem-based research serve to actively master the educational material by applying the previously acquired knowledge and skills in new situations to problem situations created in a consistent and goal-oriented manner during the lesson. The use of didactic tools with problem-based educational technology is one of the most convenient ways to determine the talent of students. In this case, the student is given tasks with a discussion text or handout didactic cards, and the student's creativity is developed by explaining the process or event. For example, assigning assignments suitable for working in a group or in cooperation with technology will arouse students' interest and motivation in science. Students are given to prepare a one-hour lesson plan on problem-based learning technology:

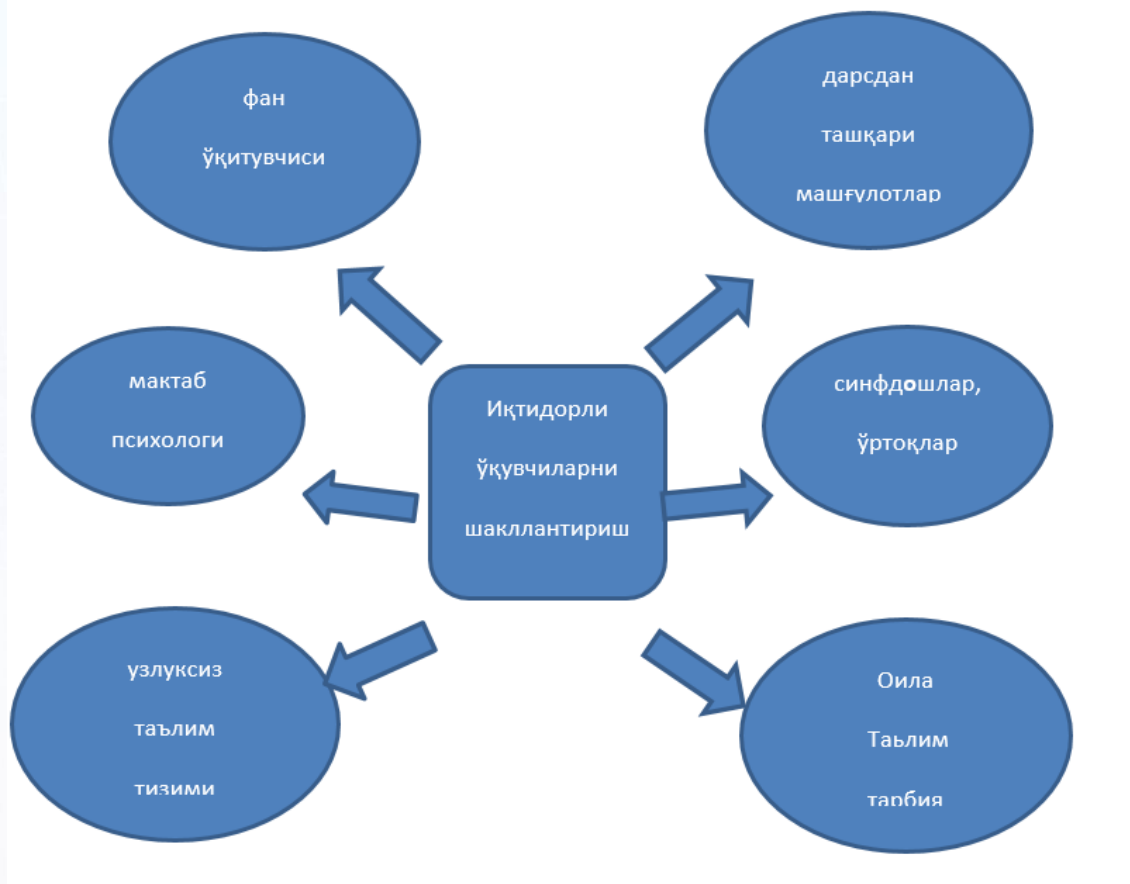
This group of methods prepares the ground for students' intellectual development, development of creative and independent thinking skills, analysis of problems and finding the most optimal way out of them, and getting the goal right. The structure of the problematic education system consists of a complex of interrelated and increasingly complex situations. In the implementation of problem-based teaching technology, the teacher often uses problem questions, tasks, problem story method in the form of cognitive (problematic) tasks. A set of purpose-built tasks that create problematic situations provides for the development of thinking ability at the level of relationships and dependencies, the main task of problem-based teaching. This allows students to acquire a certain experience of creative activity, which is necessary in the process of research. Students develop a lesson plan by adapting the one-hour lesson plan to problem-based learning technology: they are acutely aware of social injustice, make high demands on themselves and others, respond truthfully to truth, justice, harmony and nature ; who cannot clearly distinguish between reality and fantasy, feel their interrelationship and have difficulty understanding; gifted students have a well-developed sense of humor. Humorous gifted students have sensitive protective views. Gifted students love puzzles, word games, tricks, and often their peers can't figure out their goals. As a result of the above definitions and tests for identifying gifted students, it is possible to create a portrait of a gifted student:

1. He is interested in everything, always asks questions.
2. Offers many ideas, solutions to problems, answers to questions.



3. Expresses his opinion freely, diligently and fiercely defends it. 4. Prone to risky actions.
5. Has a rich imagination and thinking. His thinking is often related to changing and improving society and objects.
6. Has a well-developed sense of humor, sees humor in situations that may not seem funny to others.
7. Sensitive to beauty, attentive to the aesthetics of things.
8. Not conflicted, not flexible, not afraid to stand out from others.
9. Does not accept constructively critical, authoritarian instructions. 10. Strives for self-expression, creative use of objects.
11. Don't let talented people waste their time.

Relying on the legacy of our great scientists who make world-class discoveries in the foundation of our society, it is important to develop the skills and abilities to create great discoveries that serve the welfare of the people based on the requirements of today's times. Therefore, it is necessary not only to measure the talent, but also to create an appropriate developing, creative educational environment that helps to reveal the natural ability of each student. Several entities are involved in the formation and development of gifted students: the family, the general education system, extracurricular activities, the school science teacher and the school psychologist.



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To determine the methodical features of providing lessons and extracurricular education to gifted students in improving the mechanisms of identifying students in the development of students' talent; development of a diagnostic tool based on critical criteria for the development of students' talent; the model for identifying talented students in teaching biology based on the optimization of integrative-diagnostic criteria such as dimensionality, individual orientation, and the principles of objective monitoring such as openness, transparency, in relation to mobile creativity for increasing the effectiveness of lessons, extracurricular activities and independent work improved. The content of the model is a system of principles for identifying gifted students; content of competencies acquired by gifted students (cognitive, emotional-emotional, communicative, reflexive); cluster approach and its complex in identifying gifted students; innovative pedagogical technologies used to improve the mechanism of identifying gifted students.



In the process of working with gifted students, it is necessary to pay more attention to the independent work of students: focusing on solving non-standard biological problems, defending abstracts and projects, preparing research projects increases the creativity of students, helps their formation and development. Wide use of various schemes, tables, visual aids, educational films, video puzzles, and bar-code tasks in identifying gifted students and demonstrating their talent shows an effective result. There are several diagnostic methods for identifying gifted students, and based on cluster analysis, students' knowledge and interests in biology are determined. The step-by-step implementation of these diagnostic methods is implemented as the principles of talent detection mechanisms.

One of the goals of studying biology by students is to acquire the ability to work with various sources of information. One of the main sources of information is the book (textbook, e-book, handout and exhibition materials, etc.). Independent work with textbooks plays an important role in the educational process. The ability of gifted students to master the method of working with books allows to reduce the load in the preparation of lessons and homework, to increase the level of knowledge, and to arouse interest in studying biology outside the classroom. Different methods of independent work were used during the study when working with the textbook: independent work with the indicative apparatus of the textbook; read the text aloud, silently, selectively; ask questions to the text; text, answers to section questions; search for explanations of events; working with a dictionary; planning (simple, detailed); planned retelling; preparation of abstracts, summaries; working with textbook pictures; working with instructions for laboratory work and practical training; working according to the plan and using it in practice.

#### **ADABIYOTLAR RO'YXATI**

1. O'.Pratov, A.To'xtayev, F.Azimova 5-sinf "Botanika"., O'zbekiston 2015.
2. O'.Pratov, A.To'xtayev, F.Azimova, M. Umaraliyeva., 6-sinf "Biologiya"., O'zbekiston 2017.
3. O.Mavlonov., 7-sinf "Zoologiya"., O'zbekiston milliy ensiklopediyasi 2017.
4. B.Aminov, T.Tilovov, O.Mavlonov., 8-sinf "Biologiya (odam va uning salomatligi)". O'qituvch 2019.



5. A.Zikiriyyev, A.To'xtayev, I.Azimov, N.Sonin.,9-sinf "Biologiya (sitologiya va genetika asoslari)" "Yangiyo'l poligraf servis" 2019.
6. A. G'afurov, A. Abdukarimov, J. Tolipova, O.Ishankulov, M. Umaraliyeva, I. Abduraxmonova.,10-sinf "Biologiya" Sharq 2017.
7. A. G'afurov, A. Abdukarimov, J. Tolipova, O.Ishankulov, M. Umaraliyeva, I. Abduraxmonova.,11-sinf "Biologiya" Sharq 2018.
8. Сосновський Ю.В., Соколова Т.О. Технология використання ком'ютерних моделей при вивченні медичної біологічної фізики // [Електронний ресурс].
9. G.U.Suyunova, BZ Usmonov. Biologiya fanini o'rgatishda axborotkommunikatsiya texnologiyalari o'rni va vazifalari// Academic research in educational sciences. T-2. №3.
10. Guljahon Uchqunovna Suyunova. Biologiya fanini o`rganishda dasturning amaliy qismining o`rni. ekskursiyalarni tashkil etish. European Journal of Interdisciplinary Research and Development, Vol. 10 (2022), 157–165. Retrieved from.
11. G.U.Suyunova. Biologiya fanini o'qitishda kompyuter texnologiyalari o`rni. o`zbekistonda fanlararo innovatsiyalar va ilmiy tadqiqotlar jurnali . 19-son 20.05.2023