

## WAYS TO CONTENT BIOLOGICAL COMPETENCE SKILLS IN STUDENTS

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### ANNOTATION

The article covers active methods of improving methodological competence in teaching biology, specific pedagogical features of the teaching methodology of the discipline, methodological ways of organizing creative work on the basis of didactic goals and objectives of teaching.

**Keywords:** professional competence, content of educational disciplines in biology, self-development of teachers as a person, continuity of interactive methods and tools.

Provides for the development of subject competencies in general secondary schools. At the end of the 20th century, scientists introduced another personality trait inherent in specialists – competence. The concept of "competence" entered the field of education as a result of psychological scientific research. Psychological point of view competence refers to "non-traditional situations, how a specialist behaves in unexpected cases, enters into communication, behaves in a new way in interaction with opponents, when performing non-trivial tasks, using information full of conflicts, owns a plan for behavior in consistently developing and complex processes." To distinguish between general and specific A.B. Khutorskoy proposes to distinguish between the concepts of "competence" and "competence", which are often used as synonyms. Competence is the possession of competencies belonging to a person, including the subject of attitude and activity, which is part of his personal qualities (characteristic). Competence is considered one of the most important components of the professional competencies of a pedagogical person. Allows you to draw conclusions about the methodological competence of the teacher:

it is considered one of the types of pedagogical competence of the teacher;

manifests itself in the methodological activities of the teacher as one of the types of professional pedagogical activity;

indicates the unity of its theoretical and practical training for the implementation of upbringing;

it is based on the totality of general pedagogical and methodological knowledge, skills, experience and personal qualities.

The established circumstances form the basis for considering the methodological competence of the teacher as an integrative characteristic of the work of the subject of the pedagogical process; reflect general and methodological knowledge, skills, experience and personal qualities, readiness and ability to effective methodological activity, and ensure the achievement of high performance in the field of teaching and teaching students.

Classes from biology are held in classrooms equipped with the necessary equipment. Classes are carried out using modern pedagogical and information technologies, electronic educational resources, interactive methods, based on modern approaches in the field of Education. One of the effective methods of teaching biology is "Keys stadi". The theme and content of Keys stadi is determined by the teacher. It is displayed using visual and Multimedia Tools.

Examples of case assignments from biology.

Keys from research methods of biology. American Scientists have restored the heart muscle by taking it from connective tissue cells. Connective tissue cells were “reprogrammed” using viral vectors, as a result of which normal cardiomyocytes appeared in them. The results of this study and a number of other works testify to the success of regenerative techniques in biology and medicine.

Keys "food chain".

In 1953, in Japanese villages, people began to suffer from some strange disease. It affected the nervous system: patients had impaired compliance with movements, they lost hearing, visual activity and thinking.

Doctors diagnosed mercury poisoning. But where did this Mercury come from? True, the village was located near the sea bay, where a chemical plant would throw waste, including mercury. But the amount of mercury in sea water was negligible.

Task:

1. How to explain the causes of this phenomenon?
2. Determine the food chain, name their main types.
3. Which food chain contains a large number of joints: aquatic or terrestrial? Prove it with examples.
4. What is the cycle of substances in an ecosystem, what organisms play a big role in its conservation?

The use of keys technologies in the educational process of biology allows, through the search and processing of information, to develop the intellectual abilities of students, to form their mental experience, to activate cognitive activity, to increase the motivational content of the educational process and, accordingly, the quality of training.

In the methodology of teaching biology, special attention is paid to the formation of tanyach competencies.

The formation of competencies in educators requires the use of competency-oriented assignments in biology dasrs. The system of competence-oriented tasks includes: work with educational and regulatory documents, creation of real life, tasks of a sought-after nature, tasks related to ensuring compliance, tasks related to data collection, tasks related to thought-provoking.

## References

1. М.М.Исабаева. Умумтаълим мактабларида биология ўқитувчиларининг таянч компетенцияларни ривожлантириш. НамДУ илмий ахборотномаси - Научный вестник НамГУ 2021 йил 4-сон, 464-468бетлар.
2. Умаралиева М.А. Ўқитувчиларни касбий маҳорати ва компетентлигини ривожлантириш жараёнида мотивлаштириш шакллари. – Т.: “Халқ таълими” журнали. 2014. №6. 72-76 б.
3. Mominova, R. N., and D. Ibragimova. "A healthy lifestyle and its importance." *The American Journal of Applied sciences* 3.03 (2021): 1-6.
4. Inoyatkhon, Ravshanova, and Ahmadjonova Mohiyatkhon. "A HEALTHY LIFESTYLE IS A KEY FACTOR IN THE EDUCATION OF DEVELOPED PERSONS." *Innovative Technologica: Methodical Research Journal* 2.05 (2021): 147-150.
5. Mahkamov, Gulomjon Mamurovich, and Rozali Yakubovich Ruzmatov. "About the practice of using excursions in natural lessons." *ACADEMICIA: An International Multidisciplinary Research Journal* 11.3 (2021): 2066-2070.

6. Jaloldinovich, Isomiddinov Zokirjon. "Absolution Capacity of Irrigated Gray-Brown Fulvous Soils." *INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY RESEARCH AND INNOVATIVE TECHNOLOGIES*. Vol. 2. 2021.
7. Tursunova, Shahodat A., and Sardorbek T. Mamasoliev. "ALGOFLORE OF TYPICAL GRAY SOILS FOR CONTINUOUS TILLAGE." *Chief Editor*.
8. Gapparov, A. M., et al. "Alkaloids from *Convolvulus lineatus* and *C. olgae* growing in Uzbekistan." *Chemistry of Natural Compounds* 44.2 (2008): 270-271.
9. Gapparov, A. M., and S. F. Aripova. "Alkaloids from the aerial part and roots of *Convolvulus pseudocanthabrica* indigenous to Uzbekistan." *Chemistry of Natural Compounds* 47.4 (2011): 673-674.
10. Tuychibaevich, Murodjon Isagaliev, and Isomiddinov Zokirjon Jaloldinovich. "BIOGEOCHEMISTRY OF THE ONION (*Allium cepa* L.) IN IRRIGATED SOILS." *Journal of Natural Remedies* 21.12 (2) (2021): 9-17.
11. Toshmatova, Shoirahon Ruzievna, and Saminjon Olimovich Usmonov. "Biological aspects of human adaptation to environmental conditions." *ACADEMICIA: An International Multidisciplinary Research Journal* 11.3 (2021): 2185-2188.
12. Isomiddinov, Zokirjon Jaloldinovich, and Xurshidjon Abduvohidovich Ma'murov. "BIOXILMA XILLIKNI SAQLASH VA QO'RIQLANADIGAN MINTAQALARNING AHAMIYATI." *Научная дискуссия: вопросы математики, физики, химии, биологии* 5-6 (2017): 89-93.
13. Gapparov, A. M., et al. "Derivatives of the alkaloid convolvine and their pharmacological activity." *Chemistry of Natural Compounds* 47.4 (2011): 608-611.
14. Sobirhonovna, Toshpulatova Dilraboixon. "DEVELOPMENT OF STUDENTS' CREATIVITY." *ASIA PACIFIC JOURNAL OF MARKETING & MANAGEMENT REVIEW ISSN: 2319-2836 Impact Factor: 7.603* 11.06 (2022): 18-22.
15. Kuchboev, Maqsadjon Jumanovich Madumarov Abdurakhim Ergashevich, Hasanboy Kholiknazarovich Abdunazarov, and Amirov Oybek Olimlonovich. "Development of the Parasite Nematode *Echinuria Uncinata* (Nematoda: Acuariidae) in the Intermediate Host in Uzbekistan." *Annals of the Romanian Society for Cell Biology* 25.6 (2021): 3118-3124.
16. Melibaeva, Ruzakhon, Sodikjon Abdinazarov, and Namuna Alieva. "Distribution of the pulicaria *salviifolia*, *P. gnaphalodes*, *P. uliginosa* in the fergana valley." (2021).
17. Umarova, Saboxon Minovarovna, and Xurshida Murodova. "DUDUQLANISHNING KELIB CHIQISH SABABLARI VA OLDINI OLISH." *Интернаука* 4-3 (2020): 57-58.
18. Abdurakhmonov, Ibrokhim Y. "Exploiting genetic diversity 1." *Adv Genet* 23 (2007): 272-375.
19. Qo'chqorov, Otabek Axmedovich, Shuxratjon Erkinovich Otajonov, and Xurshidjon Abduvohidovich Ma'murov. "Geografiya Ta'limida Geografik Axborot Tizimlaridan Foydalanish." *Интернаука* 21-3 (2019): 66-68.
20. Mamirovna, Turdiyeva Odina, Pozilov Mamurjon Komiljonovich, and Makhmudov Rustamjon Rasuljonovich. "HEPATOPROTECTIVE POTENTIAL OF POLYPHENOLS IN CCL4-INDUCED HEPATIC DAMAGE." *European science review* 11-12 (2020): 3-8.
21. Mirsaydaliyevich, Yusupov Ibragim. "HISTORY OF BIOINFORMATICS." *INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 7.429* 11.07 (2022): 72-76.

22. Muxayyoxon, Usmonova, and Usmonova Xilolaxon. "KASB BU-HAYOT." *Yosh Tadqiqotchi Jurnal* 1.5 (2022): 327-333.
23. Yusupov, Ibragim. "METHODS OF DETERMINING THE MINERALIZATION OF THE SOIL." *Конференции*. 2021.
24. Kushanov, F., et al. "Molecular mapping of photoperiodic flowering in cotton." *Proceedings of the International Cotton Genome Initiative 2010 Conference*. Canberra. 2010.
25. Kuchboev, Abdurakhim E., et al. "Morphological and ecological features of some nematodes of the genus *Rhabdochona* in marinka obtained from Fergana Valley, Uzbekistan." *Journal of Parasitic Diseases* 45.4 (2021): 1084-1089.
26. Isomiddinov, Zokirjon. "ON ANALYSIS OF CHEMICAL ELEMENTS IN THE SOIL-ONION SYSTEM." *Конференции*. 2021.
27. Qizi, Usmonova Muxayyoxon Sobirjon, and Usmonova Xilolaxon Yuldashevna. "O'smirlar uchun kelajak kasbini tanlashda individual mayllarini aniqlash." *Ta'lim fidoyilari* 19 (2022): 481-487.
28. Otajonova, Sarvigul. "PESTS OF FRUIT ORCHARDS IN THE TERRITORY OF KOKAND." *Конференции*. 2021.
29. Ramazanov, Nurmurod Sh, et al. "Phytoecdysteroids-containing extract from *Stachys hissarica* plant and its wound-healing activity." *Natural product research* 31.5 (2017): 593-597.
30. Usmonova, Mukhayohon. "PROFESSIONAL COMPETENCY BUILDING FUTURE BIOLOGY TEACHER." *European Journal of Research and Reflection in Educational Sciences Vol* 7.12 (2019).
31. Umarova, S. M. "PROTECTING THE POPULATION OF UZBEKISTAN FROM ENVIRONMENTAL EMERGENCIES." (2022): 130-135.
32. Асқарова, Манзура Авазбековна, et al. "READING-INTELLIGENCE AS A CAPACITY-BUILDING TOOL." *Scientific Bulletin of Namangan State University* 2.7 (2020): 398-402.
33. Adxamovna, Ibragimova Dilfuza, and Meliboyev Tavakkal Turgunovich. "REPRODUCTIVE HEALTH IS THE GUARANTEE OF A HEALTHY FAMILY." *Modern Journal of Social Sciences and Humanities* 4 (2022): 374-377.
34. Ravshanova, I. E., M. S. Ahmadjanova, and Y. S. Shermatova. "Role of physiological and psychological characteristics of a person in life safety." *European Journal of Research and Reflection in Educational Sciences Vol* 8.1 (2020).
35. O'ZBEKISTON RESPUBLIKASI, OLIY VA O. "RTA MAXSUS TA'LIM VAZIRLIGI Yusupov Ibragim Mirsaydalievich UMUMIY MIKROBIOLOGIYA 5110400-Biologiya o'qitish metodikasi DARSLIK Toshkent-2020 138-139 betlar." *Мувофиқлаштирувчи кенгашининг ўқув-услубий бирлашма ва комиссиялари томонидан ижобий хулоса берилган. Ўз Р. Олий ва ўрта махсус таълим вазирлигининг* (2021).
36. Sadriyevna, Axadjanova Mohiyat. "Science of Genetics and a Brief History of Its Creation. the Creation of the Laws of Heredity." *European Scholar Journal* 1.3 (2020): 14-15.
37. Ishankulova, Dilafruz Ulugbekovna, and Khislat Kudratovich Khaidarov. "SPECIES DIVERSITY AND PROSPECTS FOR CULTIVATION OF DECORATIVE SHRUBS OF JIZAK." *Scientific Bulletin of Namangan State University* 2.9 (2020): 100-104.
38. Meliboyev, Tavakkal Tursunovich, and Dilfuza Atkhamovna Ibragimova. "Technology for Introducing a Healthy Lifestyle Into the Minds of Young People." *European Journal of Research Development and Sustainability* 2.2 (2021): 56-58.

39. Xayrullaevna, Tojiboeva Sevarakhon. "THE IMPORTANCE OF USING THE SCIENTIFIC HERITAGE OF IBN SINA IN THE TEACHING OF BIOLOGY IN GENERAL SECONDARY EDUCATION." *European Journal of Research and Reflection in Educational Sciences Vol 8.12* (2020).
40. Muminova, Ranohon, and Ro'zali Yoqubovich Ro'zmatov. "THE ROLE OF ALGAE IN WATER TREATMENT." *Scientific Bulletin of Namangan State University 2.9* (2020): 96-100.
41. Ахмаджанова, Мохият Садриевна. "THE USE OF MENTAL MAPS IN TEACHING THE TOPIC OF EPISTASIS." *Актуальные научные исследования в современном мире 6-7* (2020): 9-11.
42. Mansurovich, Azimov Muxiddin, and Azimova Dilafruz Gayratovna. "Theoretical foundations of the organization of the agency for youth affairs." *Asian Journal of Research in Social Sciences and Humanities 12.4* (2022): 510-511.
43. Sabirovna, Shermatova Yakut. "Use of Innovations and Foreign Experiences in Education of Students on Life Safety." *Eurasian Research Bulletin 7* (2022): 58-61.
44. Isomiddinov, Zokirjon Jaloldinovich, and Xurshidjon Abduvohidovich Ma'murov. "YER YUZASIDA TARQALGAN BIOSENOZ VA POPULYASIYANING ASOSIY XUSUSIYATLARI." *Интернаука 8-3* (2017): 38-40.
45. Abdinazarov, X. X., M. J. Madumarov, and S. M. Haydarov. "Zooplankton of Sarikamish Lake (Uzbekistan)." *Open Access Library Journal 6.3* (2019): 1-8.
46. Тожибоева, Севара Хайруллаевна. "Биология дарсларида Абу Али ибн Синонинг табиат ва инсон саломатлигига оид қарашларидан фойдаланиш усуллари." *Современное образование (Узбекистан) 12* (2018): 42-47.
47. Ходжаева, Насиба Журакуловна, et al. "ВЛИЯНИЕ АБИОТИЧЕСКИХ ФАКТОРОВ НА РАСПРОСТРАНЕННОСТЬ И ПЛОТНОСТЬ ВИДОВ СЕМЕЙСТВ UNIONIDAE, PISIDIDAE, EUGLESIDAE И CORBICULIDAE В ВЫСОКОГОРНЫХ РАЙОНАХ ПРИБРЕЖНОЙ ЗОНЫ КАШКАДАРЬИ." *Бюллетень науки и практики 7.11* (2021): 28-33.
48. Облабердиева, К. Д., et al. "Воспитание информационной и нравственной культуры у современной молодежи в интернете." *Сборники конференций НИЦ Социосфера. No. 12. Vedecko vydavatelske centrum Sociosfera-CZ sro, 2016.*
49. Усмонов, С. О., and А. А. Мирзарахмонов. "ИЗБИРАТЕЛЬНАЯ СИСТЕМА РЕСПУБЛИКИ УЗБЕКИСТАН." КОДЕКС О ВЫБОРАХ" И ЕГО ЗНАЧЕНИЕ." *Ученый XXI века 10 (81)* (2021): 21-25.
50. Исабаева, М. М. "Инновацион таълим муҳитида соғлом турмуш тарзи кўникмаларини таркиб топтириш технологияси." *Современное образование (Узбекистан) 10* (2016): 46-51.
51. Азимов, Мухиддинжон Мансурович, et al. "КЕЙСЛАРДАН ФОЙДАЛАНИБ "НУКЛЕИН КИСЛОТАЛАР, ДНК ВА РНК МОЛЕКУЛАСИ" МОДУЛИНИ ЎҚИТИШ." *Интернаука 21-3* (2020): 54-55.
52. АРТЫКОВ, САДРИТДИН САЙФУТДИНОВИЧ, МОХИГУЛ РУСТАМОВНА ХАЛИМОВА, and ДИЛРАБО СОБИРДЖОНОВНА ТАШПУЛАТОВА. "КОМНАТНЫЕ РАСТЕНИЯ И ЭКОЛОГИЯ ЖИЛИЩА." *МОЛОДЕЖЬ И НАУКА: ШАГ К УСПЕХУ. 2019.*
53. ТУРДИЕВА, ОДИНА МАМИРОВНА, СЕВАРА ХАЙРУЛЛАЕВНА ТОЖИБОЕВА, and ШАХОДАТ АБДУЖАББОРОВНА ТУРСУНОВА. "О ПРЕДОТВРАЩЕНИИ УСТАЛОСТИ У ШКОЛЬНИКОВ." *БУДУЩЕЕ НАУКИ-2015. 2015.*
54. ТУРДИЕВА, ОДИНА МАМИРОВНА. "ОХРАНА ОКРУЖАЮЩЕЙ СРЕДЫ КАК СРЕДСТВО ФОРМИРОВАНИЯ БИОЛОГИЧЕСКОЙ КУЛЬТУРЫ." *БУДУЩЕЕ НАУКИ-2015. 2015.*

55. АРТЫКОВ, САДРИТДИН САЙФУТДИНОВИЧ, МОХИГУЛ РУСТАМОВНА ХАЛИМОВА, and ДИЛРАБО СОБИРДЖОНОВНА ТАШПУЛАТОВА. "ОХРАНА РЕДКИХ И ИСЧЕЗАЮЩИХ ПТИЦ." *МОЛОДЕЖЬ И НАУКА: ШАГ К УСПЕХУ*. 2019.
56. Махкамов, Г. М., and Р. Я. Рузматов. "Педагогические и психологические проблемы обучения детей с нарушениями зрения." *Наука и мир* 2.4 (2020): 84-86.
57. Бердиев, Гайратжон Хасанбоевич, et al. "ПЛАНЕТАМИЗДА ТИРИК ОРГАНИЗМЛАРНИ ТАРҚАЛИШ ЧЕГАРАЛАРИНИНГ АСОСИЙ ҚОНУНИЯТЛАРИ." *Интернаука* 20-2 (2018): 52-54.
58. Сейткадиева, А. М., М. М. Исабаев, and Е. М. Раушанов. "ПОВЫШЕНИЕ КОНКУРЕНТОСПОСОБНОСТИ ФИРМЫ В РАМКАХ ИНДУСТРИАЛЬНОЙ ПОЛИТИКИ: ЛИТЕРАТУРНЫЙ ОБЗОР." *Economics: the strategy and practice* 14.4 (2019): 43-52.
59. ТОШПУЛАТОВА, ДИЛРАБО СОБИРДЖАНОВНА. "РАЗВИТИЕ КРЕАТИВНЫХ СПОСОБНОСТЕЙ УЧАЩИХСЯ НА УРОКАХ БИОЛОГИИ." *ОБРАЗОВАНИЕ. НАУКА. КАРЬЕРА*. 2021.
60. Ахмаджонова, Мохият Садриевна. "Состояние окружающей среды и её влияние на здоровье человека." *Инновационная экономика: перспективы развития и совершенствования* 2 (7) (2015): 29-31.
61. Равшанова, Иноятхон Эркиновна, and Ёкутхон Собировна Шерматова. "ТАЛАБАЛАРНИНГ ПСИХОЛОГИК САЛОМАТЛИГИНИ ТАЪМИНЛАШНИНГ АСОСИЙ МЕЗОНЛАРИ." *Интернаука* 3-2 (2020): 87-89.
62. Тожибоева, С. Х. "ТЕХНОЛОГИЯ КОНСТРУИРОВАНИЯ УЧЕНИЯ АВИЦЕННЫ НА УРОКАХ БИОЛОГИИ." *Педагогические науки* 2 (2020): 12-15.
63. Mahmudovna, Akhmedova Mastura, and M. M. Isaboeva. "Forms of organizing the cognitive activity of students in the process of solving problems and exercises in biology." *Web of Scientist: International Scientific Research Journal* 3.7 (2022): 68-76.
64. Юсупова, Махпуза Нумановна, and Мастура Махмудовна Ахмедова. "МЕВАЛИ ДАРАХТЛАРНИ ЗАРАРКУНАНДАЛАРИГА УЙЎУНЛАШГАН КУРАШ ЧОРАЛАРИ." *ЖУРНАЛ АГРО ПРОЦЕССИНГ* 2.8 (2020).
65. Ахмедова, Мастура Махмудовна. "ЗАРАРКУНАНДАЛАРГА ҚАРШИ ФОЙДАЛАНАДИГАН ЙИРТҚИЧ ЭНТОМОФАГЛАР." *Интернаука* 23-2 (2018): 43-44.
66. Хонбобоев, Хакимжон Октамович, Фозилжон Усибхонович Полатов, and Мухаммад-Анасхон Хакимжонович Икромов. "Tasviriy san'atni oqitishda interfaol metodlardan foydalanish." *Молодой ученый* 3-1 (2016): 22-23.
67. Хонбобоев, Хакимжон Икромович, and Дилшод Улугбекович Султанов. "РУКОВОДСТВО НАУЧНО-ИССЛЕДОВАТЕЛЬСКОЙ ДЕЯТЕЛЬНОСТЬЮ СТУДЕНТОВ ПРИ ОБУЧЕНИИ ПРЕДМЕТАМ ИНФОРМАТИКИ И ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ." *Актуальные научные исследования в современном мире* 12-1 (2016): 63-65.
68. Хонбобоев, Хакимжон Октамович, Мубина Хакимжоновна Икромова, and Мухаммад-Анасхон Хакимжонович Икромов. "Ta'limda axborot texnologiyalarni qollashning oziga xos xususiyatlari." *Молодой ученый* 3-1 (2016): 21-22.