The content of vocational guidance of students in teaching biology

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ABSTRACT

Vocational guidance work in general secondary schools in our republic is part of the educational and educational process, and the leading role in it falls on the shoulders of the teacher of science. The teacher connects the promotion of the profession with the structure of educational science on an integral and planned basis, while facilitating the student's awareness of various aspects of the world of modern professions.

Keywords: subject, biology, education, schools, graduate

As well as other subjects of study, the biology course has a great opportunity in the field of vocational guidance, allowing students to get acquainted not only with such specialties that are relevant in our time as an environmentalist, farmasevt, sanitary doctor, landscape designer, but also with many other professions. It is for this reason that vocational education can be mentioned in classes as one of the main components of vocational guidance work. J. from Methodist scientists with the problem of orientation in the profession in teaching biology.O.Tolipova's work can be recognized. That is, the methodological manual for teachers of secondary special, vocational educational institutions touches on the problems of vocational guidance in teaching the educational subject "biology", as well as methodological recommendations on the use of pedagogical technologies in teaching, directing biology to fields were also developed by him [126].

G.S.Ergasheva studies professional orientation in teaching biology as a direction of upbringing and socialization [150], but the methodology of vocational guidance in biology lessons in general secondary schools has been overlooked.

E. improvement of the methodological foundations of the problem of vocational guidance in teaching biology in the countries of the Commonwealth of independent states.V.Delarova [37], R.X.Djamaletdinov [38], L.A.Dudina [40], N.V.Eremeeva [43], N.G.Ianina [49, 50], E.S.Although Kidyamkina [63] and others have covered various aspects in scientists ' research, the content of vocational guidance in biology lessons has not been fully researched.

We recommend below the content of vocational guidance (in the section of classes) of students in biology classes in general secondary schools.

Vocational guidance work in biology lessons in general secondary schools is the main type of preparation of students for specialized education in the educational process, which occupies one of the important places in the student's choice of his profession.

Vocational guidance work in classes should be aimed at familiarizing yourself with the profession, the formation of a positive

attitude towards a particular profession in the student, which should include the separation of this profession from a number of other professions, the desire to learn about it, that is, it is necessary to promote the emergence of the first interest in the profession. (Appendix 1).

In the process of vocational guidance work, the concepts of "profession" and "specialty" are introduced, the classification of professions is explained, and goals and motives for the profession are determined. Attention is paid to classification signs: purpose, subject, means of Labor.

The reader should be explained the following: the goal of Labor is the result that society expects or demands from a person.

The subject of Labor is a set of properties and relationships of objects, phenomena, processes that a person of a particular profession uses theoretically or practically (for example, the subject of labor of a soil scientist – environmentalist is soil, its specific aspects and all living things in the soil environment)[].

Means of Labor are objects and objects that a person uses in his influence on the subject of Labor. It is extremely important to describe the concepts of" purpose of the profession "and" motivation of the profession", that is, it is important to explain why and why a person chooses a particular profession. Working on these concepts will make it possible to consciously get to know biology-related professional activities more closely in the future.

Our object of study was considered, vocational guidance work in biology lessons of the 8th grade. In the process of studying the course" Man and his health " [74], students can be introduced to several areas of Medicine of various specialties, professions related to pharmaceutical, veteran's, laboratory work.

In the introductory lesson, it is necessary to provide information about the concepts of "profession" and "specialty". The concept of" specialty " is interpreted as a limited area of \ u200b \ u200bapplication of the physical and spiritual forces of a person, giving him the opportunity to have the necessary means of living in exchange for the labor expended on him. When it is called a profession, it is understood that a group of specialties close to each other, for example, an eye doctor, a Attending Physician and similar specialties. All these specialties are united into a group called "professions related to medicine".

With the aim of vocational guidance in the study of the musculoskeletal system, students are introduced to such specialties as a doctor-radiologist, Ambulance Service doctor and surgeon. Familiarization with how to apply first aid in case of injury, dislocation and fracture and how to put a plank will contribute to the formation of professional skills that can later be applied in labor activities, and at the same time the awakening of interest in the profession of a nursing, sanitary assistant. About modern methods of treating fractures for students in order to increase the level of knowledge, N.I.Information is given about Pirogov's contribution to traumatology[].

In the process of studying the topic" the internal environment of the organism", he introduced students to such a field of medicine as immunology, with diseases associated with the immune system, with the achievements of Immunologists-doctors that allow carrying out organs and tissues; the prospect of the development of immune engineering, attempts to create vaccines against cancer and AIDS are told.

I.I.Mechnikov's contribution to the development of the doctrine of immunity, E.Creation of the smallpox vaccine by Jenner, L.Information is provided about anti-rabies vaccines developed by Pasteur.

And on the topic" blood and its composition " it is told about the specialties of a doctor-hematologist, doctor-laboratory assistant, paramedic-laboratory assistant, who conducts research on biological materials in clinics, biochemical and bacteriological laboratories. In this case, it should be noted the importance of laboratory diagnostics, since the results of the analysis will tell about the patient's condition much more than all the rest of the information about the patient. As the doctor studies the blood formula, it is said what he can know. Readers can be offered to examine the micropreparation "mazok from human blood" under a microscope. This will not only

improve students ' skills in working with a microscope, but also contribute to the assimilation of the necessary knowledge, but also make it possible to form their professional skills, which in the future can be applied in labor activity.

"Tissue compatibility. In the lesson on the topic" blood transfusion", students are offered to prepare a report on the history of the discovery of blood groups, on the importance of the work of doctors and natural scientists, doctors, prepare information about scientific achievements in the fields of Hematology and transfusology.

"Heart. In the process of studying the topic" circle of blood circulation", students can learn about such medical specialties as cardiologist, cardiac surgeon, surgery nurse, and get acquainted with the activities of a well-known cardiologist-surgeon.

On the topics" movement of blood along the veins "and" first aid in case of bleeding", it is proposed to study ways to provide medical care in various bleeding situations, to measure blood pressure, that is, a solid skill is formed in students, which they can apply both in their daily lives and in future professional activities as a medical worker.

A lesson on the topic" diseases of the blood system " can be conducted in part in the form of a consortium of doctors, in which the issues of prevention and treatment of diseases of the heart and blood vessels can be discussed. This allows students to continue to get acquainted with the profession of a cardiologist. At the end of the lesson, "future doctors" can be instructed to develop a complex of measures that will help reduce the incidence of heart disease and the occurrence of anemia.

On the topic" respiratory system", in the lesson" diseases of the respiratory system", the attention of students is focused on how important the work of a doctor-pulmonologist and a doctor-phthisiatrician is, as well as on the peculiarities of the work of radiologists who identify changes in the respiratory organs and other organs. The need for fluorographic research, radioscopy, computer diagnostics, which required knowledge in physics, chemistry, computer science, is emphasized. In the process of informing about air pollution in the atmosphere, the profession of a laboratory assistant-environmentalist, sanitary doctor is introduced, at the same time, differences in the preparation of sanitary and therapeutic doctors, their specific labor are noted.

Practical work on "determining the dust of the air" will help students to better know about the peculiarities of the work of a sanitary doctor and a laboratory assistant-ecologist. (Appendix 4) before carrying out this practical work, an attempt is made to draw the attention of students to the psychological and psychophysical qualities of people engaged in laboratory research, these are: professionalism, diligence, possession of special knowledge, honesty, sharpness of vision.

The study of the topics" digestive system "and" metabolism of substances and energy " will continue to acquaint students with the activities of a sanitary doctor, in addition, with such specialties as a dentist, infectologist, farmasevt, gastroenterologist, dietitian, kindergarten diet nurse, laureate of the Nobel Prize for their work in the field of physiology of digestion and blood circulation I.P.They can also get acquainted with Pavlov's scientific work.

The study of the topic" subtraction system " allows students to get acquainted with the specialty of a urologist and gain more knowledge about the work of a sanitary doctor and laboratory assistant.

On the topic" reproduction and individual development of the organism " it is told about the profession of an obstetrician-gynecologist, a doctor engaged in prenatal diagnostics, specialties working with tube cells, popular research work on cloning of the organism, moral and spiritual aspects of human cloning are mentioned[].

When familiarizing students with the topics" fundamentals of the theory of heredity and variability"," fundamentals of selection of plants, animals and microorganisms", it is revealed the role of genetic engineering in biotechnology, agriculture, food industry, medicine, environmental protection. The professions of a genetic, cytogenetic, microbiologist, breeder, gardener, vegetable

scientist, florist, zootechnician, laboratory assistant are also introduced to various medical specialties (Appendix 5).

To get acquainted with the professions of an archaeologist, anthropologist, biologist, paleobotanical, excursion, employee of the Museum of Paleontology and local lore, readers will be helped by the topics "theory of evolution", "the emergence of life and the development of the organic world", "the emergence of man".

When studying the topic" fundamentals of ecology", it is necessary not only to talk about the subject of Ecology and its functions, but also to emphasize the importance of the work carried out to maintain natural balance and harmony in a living nature. It is necessary to mention, of course, that new professions and specialties are being created in the field of Ecology. In modern society, such specialists are extremely important and in demand. Against this background, students will be informed about various professions in the field of Ecology. Middle link: laboratory assistant-environmentalists, chemical production apparatus (with knowledge of the basics of industrial ecology). These specialties are new, they can be mastered in vocational educational institutions. These specialists conduct laboratory analyzes on the ecological characteristics of water, air, soil, fix and manage chemical and environmental equipment.

Having received education in the field of Ecology, one can become an ecologist, agronomist-agroecologist, engineer-technologist in laser technology and environmental instrumentation, engineer for Environmental Protection in construction, industry, energy, water management, specialist in environmental and Human Radiation Safety, lawyer-ecologist. These specialties can be mastered in educational institutions of technical, legal and Tabby disciplines. The professions mentioned require in-depth knowledge in biology and ecology, but also in Mathematics, Chemistry, Physics and Social Sciences.

During the acquaintance of students with professions and specialties related to biology, they are told about the essence of professional activity, about important professional qualities that are necessary in the work of one or another specialty. This will help not only students get acquainted with the world of professions, but also come to a firm opinion in the competition. Because an idea of the relationship between the requirements of the chosen profession and individual characters is formed.

Since the 9th grade course in the science of" biology " ends up studying biology at school, it is recommended to conduct a survey at the end of the school year, which will determine their interest in the profession (A.E. Golomshtok's" map of interests " methodology)[]. This encourages children to worry about their future profession, contributes to a more accurate selection of specialized education in the upper classes.

In the process of specialization-pre-training of students of the 9th grade, it is envisaged to strengthen the formation of the first interest in various professions. At this stage, a large role in self-determination of one's profession is determined not only in relation to the choice of a lesson, but also a course. A wide selection of these courses will help to identify interests, check the possibility of students. The composition and form of Organization of these courses is aimed not only at improving the knowledge of students in one subject or another, but also at organizing classes that contribute to the fact that they themselves can choose specialized education in the upper classes. They are of a short-term and Exchange nature, a training module that promotes the expansion of the field of knowledge. These modules create favorable conditions for the opening of interest, talent, creative individuality, help to determine the profession, prepare for the choice of a biology specialty education, which directs the child to the professions that need a biology course passed at school to master.

Students should not forget to carry out vocational guidance work even in extracurricular times in the formation of personal presence and interest in their choice of profession. Below we will get acquainted with the methodology of vocational guidance of students in biology lessons.

References

1. Savickas, M. L. (2013). Career construction theory and practice. In R. W. Lent & S. D. Brown (Eds.) Career development and counseling: Putting theory and research to work (2nd Ed., pp. 147–183). JohnWiley & Sons.
2. Yuen, M., Leung, S. A., & Chan, R. T. (2014). Professional counseling in Hong Kong. Journal of Counseling and Development, 92, 99–103.
3. Watts, A.G. Career guidance policy // An international review. Career Development Quarterly. 2005. 54. — P. 66–76.
4. Wong, L. P. W. (2017). Career and life planning education in Hong Kong: Challenges and opportunities on the theoretical and empirical fronts. Hong Kong Teachers' Centre Journal, 16, 125–149.
5. Wong, L. P. W. (2018). School counselor's reflections on career and life planning education in Hong Kong: How career theories can be used to inform practice. Journal of Counseling Profession, 1(1), 1–33.
6. Wong, L. P. W., & Yuen, M. T. (2019). Career guidance and counseling in secondary schools in Hong Kong: A historical overview. Journal of Asia Pacific Counseling, 9(1), 1–19.
7. Raxmatov A., Raxmonkulov F., O'sarov S. ZAMONAVIY ELEKTRON O'QUV MATERIALLARI TAYYORLASHDA ADOBE CAPTIVATE DASTURIDAN FOYDALANISH //Архив Научных Публикаций JSPI. – 2020.
8. Усмонов М. С., Абдуллаев Х. Б. Интерактивные электронные учебные курсы (ИЭУК) как средство повышения качества образования //Молодой ученый. – 2019. – №. 26. – С. 330-333.
9. Tangirov X. E., Rakhmonkulov F. P., Raxmatov A. S. O 'qitishning elektron vositalarini yaratishning asosiy texnologiyalari-Актуальние научние исследования в современном мире: XIII Междунар. научн. конф., 26-27 мая 2016 г., Переяслав-Хмельниский //Сб. научних трудов-Переяслав-Хмельниский. – 2016. – С. 108-112.
10. Raxmatov A., Temurov S. Использование проектного метода как метода формирования профессиональных компетенций у будущих учителей //Архив Научных Публикаций JSPI. – 2020.
11. Isabeov B., Raxmatov A. АХБОРОТ РЕСУРСЛАРИДАН ФОЙДАЛАНИШ ВА УНИНГ ИШОНЧЛИГИНИ ТАЪМИНЛАШ УСУЛЛАРИ //Архив Научных Публикаций JSPI. – 2020.
12. Raxmatov A. Информированная педагогическая образовательная среда //Архив Научных Публикаций JSPI. – 2020.
13. Raxmatov A. МОДЕЛИРОВАНИЕ И ВНЕДРЕНИЕ РЕГИОНАЛЬНЫХ ПРОФЕССИОНАЛЬНЫХ УЧРЕЖДЕНИЙ НА ОСНОВЕ МНОГОЭТАПНОЙ СИСТЕМЫ //Архив Научных Публикаций JSPI. – 2020.
14. Raxmatov A. ЭФФЕКТИВНОЕ ИСПОЛЬЗОВАНИЕ GOOGLE ПОИСКА //Архив Научных Публикаций JSPI. – 2020.
15. Raxmatov A. Кейс технологияси масофавий таълим ташкилий-методик таъминоти сифатида //Архив Научных Публикаций JSPI. – 2020.
16. Тангиров Х. Э., Рахматов А. Ш., Рахмонкулов Ф. П. ОСНОВНЫЕ ТЕХНОЛОГИИ СОЗДАНИЯ ЭЛЕКТРОННЫХ СРЕДСТВ ОБУЧЕНИЯ //Актуальные научные исследования в современном мире. – 2016. – №. 5-4. – С. 108-111.
17. Begbo'taev A. et al. MANTIQ ELEMENTLARI VA ULARNING QO'LLANILISHIGA DOIR BA'ZI MULOXAZALAR //Журнал математики и информатики. – 2021. – Т. 1. – №. 2.
18. Raxmatov A. et al. PLANIMETRIYAGA OID BA'ZI MASALALARNI YECHISHNING AYRIM USULLARI //Журнал

математики и информатики. – 2022. – Т. 2. – №. 2.
19. Ганиев Э. Абсаломов Толиб, Ахадкулов Анвар, Эргашев Улугбек, Рахматов Алишер //РАЗВИТИЯ ОБЩЕЕ ОБРАЗОВАТЕЛЬНЫХ УЧРЕЖДЕНИЙ НА ОСНОВЕ МАТЕМАТИЧЕСКОГО МОДЕЛИРОВАНИЯ РЕГИОНА. – Т. 455.
20. Алимов Б. Н. и др. Моделирование как средство повышения эффективности обучения математике в профессиональных колледжах //Молодой ученый. – 2015. – №. 4. – С. 539-543.
21. Raxmatov A., Mixliyeva X. Интеллектуаллаштирилган ўқитиш тизими таълим сифатини ошириш воситаси сифатида //Архив Научных Публикаций JSPI. – 2020.
22. Raxmatov A. et al. ЖАМИЯТНИ АХБОРОТЛАШТИРИШ ШАРОИТИДА МАКТАБ ИНФОРМАТИКА КУРСИНИ ЎҚИТИШНИНГ ДОЛЗАРБ МУАММОЛАРИ ВА ИСТИҚБОЛЛАРИ //Архив Научных Публикаций JSPI. – 2020.
23. Raxmatov A. et al. ABOUT PROBLEMS OF MATHEMATICAL MODELING OF DEVELOPMENT OF CHILDREN'S SPORTS IN REGIONS //Архив Научных Публикаций JSPI. – 2020.
24. Xusanovich R. I. et al. Pedagogical Methods Of Teaching Mathematics In Distance Learning //Texas Journal of Multidisciplinary Studies. – 2022. – Т. 7. – С. 352-355.
25. Saidov I. M., Axmatqulov U. M., Abdullayev B. T. OMMAVIY VA INTERNET AXBOROT RESURSLARINING YOSHLARDA VATANGA SODIQLIK TUYG'ULARINI SHAKLLANTIRISHDAGI BOG'LIQLIKLAR //Academic research in educational sciences. – 2020. – №. 4. – С. 199-203.
26. Xusanovich R. I. et al. Pedagogical Methods Of Teaching Mathematics In Distance Learning //Texas Journal of Multidisciplinary Studies. – 2022. – Т. 7. – С. 352-355.
27. Ходжаев А., Байзаков М., Холбоев Н. Maktab matematika darslarida mantiqiy masalalarni o 'qitish metodikasi //Общество и инновации. – 2022. – Т. 3. – №. 3/S. – С. 194-197.
28. Shodi M. Professional-oriented tasks as a means of implementing the principle of professional orientation of mathematics education in technical institutions of higher learning //European Journal of Research and Reflection in Educational Sciences. – 2020. – Т. 8. – №. 3 Part II. – С. 151-157.
29. Абдуллаев Б. А. и др. ОБОБЩЕННЫЕ ДИНАМИЧЕСКИЕ МОДЕЛИ ПАССИВНЫХ НЕЛИНЕЙНЫХ ЭЛЕМЕНТОВ ДЛЯ ИССЛЕДОВАНИЕ ФЕРРОРЕЗОНАНСА В ЭЛЕКТРИЧЕСКИХ СЕТЯХ.
30. Abduxakimov S., Mamatov J., Esirgapov J. MARKOV ZANJIRILARI UCHUN ERGODIK TEOREMA //Журнал математики и информатики. – 2021. – Т. 1. – №. 4.