



A MODERN MODEL FOR IMPROVING THE METHODOLOGICAL TRAINING OF FUTURE BIOLOGY TEACHERS

Usmanova Muxayyoxon Sobirjonovna

Kokand State Pedagogical Institute, doctor of philosophy in Pedagogical
Sciences (PhD)

Isomiddinov Zakirjan Jaloldinovich

Kokand State Pedagogical Institute, doctor of Philosophy (PhD) in Biological
Sciences.

Annotation. The article will talk about the possibilities of a competency approach to improving the methodological training of future biology teachers. The content of competence, the essence of the concept of scientific research related to the problem of professional development of future teachers is highlighted. In the manifestation of methodological training, the development of biological concepts, the acquisition of training and qualifications of independent work, the content of competencies for working with the resource of electronic means are highlighted.

Keywords: competence, professional competence, methodological competence, specialist, structural structure, target component, didactic properties.

Introduction

Issues of informatization of the educational system in Uzbekistan, improvement of pedagogical foundations of teaching in an electronic-information educational environment, development of methodology of teaching biology, improvement of professional and methodological training of teachers of biology: J.O.Tolipova, O.Mavlonov, G.S.Ergasheva, A.Rakhimov, I.Azimov, M.N.Ibadova, N.J.Toshmanov, S.Najimova, Sh.B. Research was carried out by the khasanovas.

Issues of improving the educational environment in Commonwealth countries, improving the methodology of teaching teachers professional, biology, gaining methodological training of future biology teachers: N.G.Bobrova, T.V.Golikova, M.N.Mirnova, L.N.Orlova, L.V.Pivovarova, N.Z.Smirnova, O.V.Berezhnaya, L.N.Sukhorukova, T.V.Syasin, E.V.Titov, V.S.Shagan et al.

N. in the field of introduction of Information advanced pedagogical and information technologies to the process of biological education in foreign countries, improvement on the basis of a competency approach, gaining methodological training. V.Gorbunova and E.V.Mokeeva, A.V.Dubakov, I.O.Igropulo, A.A.Lyubotinsky, E.E.Nepochatyh, A.N.Pechnikov, A.V.Prenzov, O.A.Plaksina and T.A.Matveyeva, M.K.Smith, A. Sorgo, K.Steffens, A.Sursock, J.H Hageman et al conducted research.

While scientific research related to the problem of professional development of future teachers has been carried out by pedagogical scientists, the improvement of methodological training of future biology teachers on the basis of modern approaches has not been sufficiently studied as a separate object of study.

Object and methods of research

The process of improving the methodological competence of future biology teachers at the pedagogical higher educational institution was established, and 50 students took part in the Kokand State Pedagogical Institute, Navoi State Pedagogical Institute.

In the research process, methods such as theoretical (theoretical research of problems, analysis of psychological-pedagogical, scientific-methodological literature); empirical (pedagogical observation, experimental-test work, expert assessment, self-assessment of students, generalization); social methods (questionnaire, question-answer, conversation); mathematical-statistical methods (criterion Xi-Square) were used.

Research results

In order to implement the idea of the complex use of traditional and information technology tools, to develop ways to more efficiently assimilate the content of the biology course on the basis of a competency approach by students, and to check the established research idea, a methodology for integrating traditional teaching and new information technology tools was developed.

To successfully carry out the educational process according to a certain methodology, it is necessary to have a scientifically based model of this methodology, thanks to which it is possible to characterize and analyze the various aspects and elements of the educational process in their interdependence and interdependence, predict the effectiveness of teaching, determine the most optimal ways of modernizing the methodology and

The determination of goals and objectives will undoubtedly be the first step in any educational and research activity, including the modeling of the educational process and teaching methodology. The goal component of the methodology we have created is the improvement of the methodological training of future biology teachers on the basis of a competency approach as a result of the development of the following set of interconnected goals:

- development of biological concepts;
- mastery of independent work training and qualifications;
- composition of performance competencies with the resource of electronic means.

The most important goal of the methodology of teaching biology is undoubtedly the formation of interdependent knowledge of science, studies, qualifications, valued orientations and also interdisciplinary and intra-disciplinary interrelations.

In the educational process, the formation of students' independence and active attitudes towards education plays a special role, since in the conditions of modernizing higher education and changing attitudes towards education in society, this plays a special role. Didactic and methodically clearly designed harmonization of biological material and computer work in classes, extracurricular and home work, contributes to the even more effective development of independent working skills, the goal of which is described in this regard. It is also necessary to note the wide possibilities that the methodology being described creates for Biological education. It is based on the following broad possibilities that create a personal computer for a student: search for information in the internet network, work with electronic textbooks, teaching programs, databases, distance learning (not discussed within the framework of our research) and many other opportunities.

Within the framework of this methodology, in addition to the opportunities listed above, all the known opportunities that training offers using traditional tools will also be preserved.

The third goal that we set is to develop the training and skills of working with a computer in the formation of methodological competence. In cases where SHK is used in teaching, it is necessary to work with a number of programs.

In addition to teaching and electronic textbooks, text-based operatic systems, graphic and HTML editors, multimedia-Proigrivatels, etc.can also be deployed.

The diversity of biology teaching tools in higher education is an important condition for effective science teaching. This has its own didactic properties, creating conditions for the existence of different information flows – along different sensory channels, representing different aspects of the object or phenomenon being studied in different directions, at different speeds. An important element of the complex application of teaching tools will also consist in an increased interest in the knowledge of the subject of study.

In connection with the allocated goals, the following methodological approaches are determined: systematic approach; complex approach; personality-oriented approach; active approach.

The systematic approach is achieved by modeling, designing, describing and applying the methodology (respectively, the learning process) as an open holistic system consisting of interconnected and hierarchically interconnected elements with a strictly defined structure. Also, within the framework of the systematic approach, both connections between elements within the system and external links are identified, created and described. In such an approach, it will be possible to effectively assimilate the necessary knowledge, skills and values by students, bring them into a single system and achieve the goals and objectives of teaching[4.5.6].

In pedagogical activity and pedagogical research, a complex approach can be implemented quite consistently and applied to various aspects of the educational process, descriptions, pedagogical experiments. Basically, the definition (definition) of a complex approach can vary. In general, a complex approach means the joint, harmonized view and (or) application of categories or phenomena combined to achieve a certain goal.

Within the framework of our research, the integrated approach is used in the description and use of a variety of teaching tools that are connected with a single educational process and a single goal-to improve the quality of teaching.

In the selection of teaching tools, the following functions of the complex approach can be distinguished:

- maximum consideration of the psycho-physiological characteristics of students' perception of information;
- create conditions for more intensive and more effective training when the optimal effect on various analyzers is achieved;

- formation of objective perceptions of phenomena and processes related to the natural environment in students;

- description of a set of teaching tools as a holistic system in which all its components are inextricably linked.

The personality-oriented approach determines the need to adapt biological content, forms, tools and methods of training with the individual capabilities and social, psychological, educational needs of each student. The implementation of the personality-oriented approach in the conditions of the complex application of traditional teaching tools and AT tools contributes to the following::

- the variety of methods of transmitting educational information (text, graphic, tactile, video) allows students with one or another sensory channel of perception to master the content most efficiently;

- allows you to individualize the pace of transition of educational material;

- allows you to create situations of interest, interest.

The active approach relies on the following rule: the teaching process should be based not only on a simple transfer of information from its source (teacher, teaching tool) to its consumer (student), but also on active independent educational and cognitive activities of students themselves. Within the framework of our methodology, an active approach was carried out with a strengthening of the role of independent (above all, personal computers and a teaching software tool) work of students in classes.

As noted above, when creating any pedagogical technology or methodology, it lies in the development of a model for achieving the intended goal based on pedagogical approaches. The definition of teaching principles is a very important link in the creation and description of methodology, which makes it possible to associate general methodological categories with direct practice of pedagogical activity within the framework of specific pedagogical technology or methodology.

Conclusion

The social order in front of pedagogical institutions of higher education is aimed at training competitive competent pedagogical personnel.

The content of the subject" methodology of teaching biology " consists of a lecture, laboratory, practical, seminar classes, as well as independent education, which is held for three semesters according to a new educational plan.

When organizing classes, we used the methods of modeling pedagogical situations, the case method, problem lectures and seminars, a system of competently oriented assignments, writing abstracts on the selected topic.

In connection with the allocated goals, the following methodological approaches are determined: systematic approach; complex approach; personality-oriented approach; active approach.

REFERENCES

1. Decree of the President of the Republic of Uzbekistan No. UP-5712 “On approval of the concept for the development of the public education system of the Republic of Uzbekistan until 2030”. // National database of legislation, 29.04.2019, No. 06/19/5712/3034.
2. Khutorskoy A.V. Educational competencies and methodology of didactics. To the 90th anniversary of the birth of V.V. Kraevsky. Electronic resource // A.V. Khutorskoy. Personal site - Chronicle of life; September 22, 2016 - <http://khutorskoy.ru/be/2016/0803/>
3. Ergasheva G.S., Azizova A. Improving the methodology for assessing the biological competence of pupils in high school // Journal of Lifelong Education. -Tashkent. No. 6. 2020-S. 91-94.
4. Smirnova N.Z., Berezhnaya O.V. Competence approach in biological education. Teaching aid. Krasnoyarsk, 2012, - p. 168.
5. Juraev R.Kh. Ergasheva G.S. and others Use of new generation electronic educational resources in secondary schools (biology). Teaching aid. Publishing house Nodirabegim. Tashkent - 2020.-95 p.
6. Omonov, Q., &Karimov, N. (2020). Importance OfAncestral Heritage. The American Journal of Social Science and Education Innovations, 2(09), 196-202.
7. Ziyamukhamedov, J. (2022). PU Sungling's Creative Legacy as a Classic Example of Medieval Chinese Literature. International Journal of Early Childhood Special Education, 14(1).
8. Gilmanshina, S. I., Sagitova, R. N., Kosmodemyanskaya, S. S., Khalikova, F. D., Shchaveleva, N. G., Valitova, G. F., &Motorygina, N. S. (2015). Professional

thinking formation features of prospective natural science teachers relying on the competence-based approach. *Rev. Eur. Stud.*, 7, 341.

9. Makulova, A. T., Alimzhanova, G. M., Bekturganova, Z. M., Umirzakova, Z. A., Makulova, L. T., & Karymbayeva, K. M. (2015). Theory and practice of competency-based approach in education. *International Education Studies*, 8(8), 183-192.

10. Podayeva, N. G., Podayev, M. V., & Agafonov, P. A. (2019). The social and cultural approach to forming geometric concepts among schoolchildren. *Amazonia Investiga*, 8(20), 459-467.