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REQUIREMENTS FOR PRESCHOOL EDUCATION TEACHER

Abstract. *The success of the huge reforms in the Republic of Uzbekistan depends, first of all, on the ability of people to take responsibility for their work, to do good deeds that will contribute to the development of the country in their daily work. In society, the educator (teacher) performs a noble and responsible task, firstly, to educate the younger generation, and secondly, to provide comprehensive education to our working people.*

Key words: *talent, ability, educator, speech activity, oratory, speech technique.*

Аннотация. *Успех огромных реформ в Республике Узбекистан зависит прежде всего, от способности людей брать на себя ответственность за свой труд, совершать добрые дела, которые в их повседневной работе будут способствовать развитию страны. В обществе педагог (воспитатель) выполняет полезную и ответственную задачу, во-первых, воспитывать подрастающее поколение, а во-вторых, давать всесторонние знания нашему трудолюбивому народу.*

Ключевые слова: *талант, способности, педагог, речевая деятельность, ораторское искусство, речевая техника.*

Annotatsiya. *O'zbekiston Respublikasida amalga oshirilayotgan ulkan islohotlarning muvaffaqiyatli natijasi, eng avvalo, odamlarning o'z ishlariga mas'uliyat bilan qarashlariga, kundalik mehnat faoliyatida mamlakat taraqqiyotiga hissa bo'lib qo'shiladigan savobli ishlarni qila olishlariga bog'liq. Jamiyatda pedagog (tarbiyachi), birinchidan, o'sib kelayotgan avlodni tarbiyalash, ikkinchidan, mehnatkash xalqimizga har tomonlama bilim berishdek savobli va mas'uliyatli vazifalarni bajaradi.*

Kalit so'zlar: *iste'dod, qobiliyat, iqtidor, tarbiyachi, nutq faoliyati, notiqlik, nutq texnikasi.*

I. Introduction

The science of preschool pedagogy is a wealth that will be inherited for the future. The value of this wealth is so great that it enriches a person spiritually and fills his heart with happiness and divine light. There is no one in the world without a teacher. Whether he is a government leader, a great scientist, a doctor, a popular writer, or a florist, let him be the mentor and the beacon of life. The greatest duty of a teacher is to prepare intelligent, capable, well-educated students who will benefit the people. The educator has an important and honorable and responsible role in educating the younger generation as worthy children of our people. The political maturity of the educator helps them to understand their responsibility to the people and society for the quality of their upbringing, to constantly activate

their skills in a creative approach to education and to help colleagues grow in the workplace. The educator must be socially active, aware of the life of the country in which he lives, understand the factors of nature and society.

II. Literature review

The leadership of the country highly appreciates the work of teachers. It is known that according to the Decree of the first President of the Republic of Uzbekistan I.Karimov (January 9, 1996), "October 1 was declared the Day of Public Educators - Teachers and Coaches". This incident shows the importance of the role of teachers in our society. For his achievements in the harmonious development of the younger generation, for his creative work in pedagogical work, for his achievements in the generalization of best practices, teachers, educators "Methodist

teacher”, “senior teacher”, “Methodist-educator”, “Excellence in Public Education” and similar honorary titles. The election of deputies from among public educators throughout the country is also a sign of deep respect for them [1].

At the initiative of the President of the Republic of Uzbekistan Sh.M.Mirziyoev, the monthly salaries of teachers in our country are increasing year by year and living conditions are improving. The scientific and methodological centers for professional development of teachers are being expanded, the demand for their political training is being strengthened, and conditions are being created for their retraining every 4-5 years.

III. Analysis

Requirements for the teacher-educator. Shaping his personality. Teacher-educator speech culture.

In any society, bringing up a harmoniously developed generation and directing it to a certain profession is done through hard work. This hard work is the product of continuous education and upbringing [2].

The first President of our country I.A. Karimov in his book “High spirituality is an invincible force” describes the professional activity of a teacher as follows: “We all know that the path to the human heart begins, first of all, with education. Therefore, when it comes to this, while remembering the invaluable legacy of our ancestors, we, along with our parents, pay tribute to another great person who is closest to us - the noble work of teachers and coaches ... In short, the contribution and impact of the great school on the development of man and society, the work of teachers and educators who decide the future not only of our youth, but of our people as a whole, cannot be measured and compared with anything” [3].

The future of our country, the prospects of independent Uzbekistan, the success of reforms in the field of education in many respects depend on the educator, his level, readiness, dedication to educating the younger generation and bringing them up at the level of harmonious human beings depending on.

It is known that in educational institutions the educational process is organized and conducted directly by the teacher. Achieving the goals of education in the new social environment, the organization of various educational activities of

students in the classroom and outside the classroom, to raise them to be educated, polite, faithful, patriotic, hardworking, well-rounded and professional. referral is the responsibility of the teachers [4].

Education is a pedagogical activity organized between a teacher and a student (educator and pupil), a systematic and systematic influence on the individual to improve the pupil in accordance with a specific goal, approaching the socio-historical experiences of society. It is a process of intensive activity aimed at the rich ideologies of the people in the comprehensive formation of the individual, in the formation of his behavior and worldview, social consciousness. On the basis of upbringing, the pupil’s consciousness is formed, his spiritual wealth and feelings are developed, which is necessary for him to find his place in social life, which serves to properly organize the interaction with people. Ethical habits are formed the well-known Uzbek writer Abdullah Avloni’s words about upbringing, “Prosperity and upbringing are for us a matter of life or death, salvation or disaster, happiness or misery” are important for the education of people of all nationalities. It is clear from these ideas that the upbringing of an individual is not a private affair but a social, national and state affair [5].

IV. Discussion

The first President of the Republic of Uzbekistan I.A.Karimov describes the main essence of a teacher’s pedagogical ability as follows:

In order to cultivate, first of all, the educator must meet such high requirements and have such great qualities. This means that both beginning teachers and experienced teachers who are in constant research need to know the following processes that form the basis of pedagogical skills [6]:

- The ability to correctly understand the inner and outer world of the student in any pedagogical situation;
- Focus on the correct understanding of the pedagogical situation;
- Confidence and demands on students;
- Ability to thoroughly assess the educational situation;
- The ability to distinguish the most important for himself from a variety of pedagogical tactics;
- Make the right decision without hesitation in case of conflict to do [7];

- Be able to use different methods of influence in education ability;
- Be able to convey ideas and feedback to the student through words, facial expressions and pantomime;
- Ability to communicate with students in class and extracurricular activities;
- Freedom and initiative in the minds of students, their own ideas develop the ability to express opinions without fear;
- Be able to help students in difficult situations [8];
- Always with the student body when conducting educational activities consultation;
- Students' educational activities study their opinions;
- Effective use of various forms of self-government;
- Be able to see the hidden positive qualities of each student and improvement;
- Categories according to the social background of students not to separate, to treat the same [9].

Article 5 of the Law on Education states that persons with appropriate education, professional training and high moral qualities have the right to engage in pedagogical activities.

The educator influences the children in their daily lives, games, activities, collaborative activities and interactions with them. He must carefully study each child, know his personal characteristics, abilities, show pedagogical delicacy, honestly assess the behavior of children, the results of work, and be able to help them in a timely manner, be interested in the situation in the family [10]. One of the main qualities of a modern educator is his devotion to his profession, ideological conviction, love of his profession and unconditional devotion to this profession, which distinguishes a teacher-educator from other professionals. One of the most important requirements for a teacher is that he / she have a deep understanding of his / her subject and methods. It raises the profile of the educator. One of the most important qualities of a caregiver is to love children, to be interested in their lives, and to respect everyone. Only a person who can devote all his energy and knowledge to the education of children as loyal citizens of the great country of the future can be a real educator. Loving children makes the complex work of a teacher attractive and easy. The attitude of the educator to children

in pedagogy is accompanied by respect for the person being brought up, as well as demands on him. This attitude instills in the child confidence in the educator, allowing the teacher to be a true spiritual mentor to the children [11].

The success of the pedagogical activity also depends on the availability of pedagogical skills. Pedagogical ability is the basis for achieving pedagogical skills. Pedagogical skills include: pedagogical observation, pedagogical imagination, attention span, organizational skills, and pedagogical behavior. Pedagogical skills are formed in the process of pedagogical activity, as well as in the process of preparing him for this activity. Pedagogical skills are the art of constantly improving the education of the younger generation [12].

Formation of the teacher-educator personality.

The educator gives preschool children a basic knowledge and understanding of nature, social phenomena, adult labor, instills in them cultural ethics, habits of cultural relations with their peers and adults, kindness, honesty, justice, courage, humility, cultivates ethical qualities such as respect for adults, interest in nature, observation, care for plants and animals, diligence, preservation of the results of adult labor [13].

Knowledge of folk art, music, singing, literature, fine arts, love of art makes the educator cultured, helps in the work with children. Only when a teacher acquires the necessary knowledge, skills and abilities in a certain sequence will he achieve good results in the upbringing and education of children.

V. Conclusion

An educator needs special training to become a master of his profession. It must meet the following conditions:

- To educate the younger generation, to have a high level of education, to have the necessary knowledge, to be able to select the necessary literature, to work with scientific literature, to study and apply the experience of advanced educators;
- The educator is able to observe children, to analyze the causes of their behavior, to find the means that have a positive effect on them;
- In order to inform the younger generation of the necessary knowledge, skills and abilities, the teacher's speech should be fluent, clear, logical and concise. Must be able to use technology

effectively in teaching. Use questions to activate children's knowledge, skills, and abilities;

- In order to fulfill the task assigned to him, the educator must be able to arouse children's interest in the activity, to attract their attention, to increase their activity, to evaluate children's behavior;

- Prepare materials for each activity in advance;

- Ability to organize the agenda correctly, to lead the children's team, taking into account each member of it;

- Be able to determine the mental and physical condition of children and take this into account in the educational work with children;

- Regular interviews, meetings and exchange of information with foster parents;

- The educator should be kind to children, create a comfortable environment for each child, and be able to comfort them when they are upset;

They should be able to analyze the educational work on the agenda and find ways to improve it.

The most important thing is that the educator should look at children with confidence, reward them for their hard work, independence, initiative and create opportunities for them to work independently. This is highly appreciated by children.

References:

[1]. Nazarova D.I. The interpretation of educational ideas in the poems of Jamal Kamal// International Scientific Journal Theoretical & Applied Science.- 2019.- №11.- Pp. 136 – 138.

[2]. Nazarova D.I. Literary Motives of Sufizm and Spiritual, Moral Ideas in the Lyrics of Jamal Kamal// International Journal of Recent Technology and Engineering (IJRTE).-2019.- №10.– Pp. 223 - 225.

[3]. Dilrabo Quvvatova, Nazarova D.I. The rubai genre in the works of Jamal Kamal// The American Journal of Social Science and Education Innovations.- 2020.- №9.- Pp. 346 - 352.

[4]. Nazarova D.I. Jamol Kamolning Asru radifli g'azaliga yozgan muxammasi// Ilim ham ja'miyet. Ilmiy-uslubiy jurnal.– 2020.- №1.– B. 93 - 94

[5]. Nazarova D.I. The foundation of Kamol Jamol's poems is pain// Conference of Management of Islamic Education Leadership In The Era of Revolution.- 2020.- №6.– Pp. 1 - 3.

[6]. Nazarova D.I. Feelings of lyric heroes in Kamol Jamol's work// Conference of Management of Islamic Education Leadership In The Era of Revolution.– 2020.- №6.– Pp. 1 - 3.



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IMPROVING THE PROFESSIONAL COMPETENCES OF FUTURE BIOLOGY TEACHERS

Annotation. Although a number of studies have been conducted on informatization of biology education, application of information technologies, methodological training of future biology teachers, methods of organizing laboratory classes, the formation of information culture of future biology teachers has not been studied as a separate research problem. Therefore, extensive research has been conducted in the world to assess the quality of education, bring it into line with international standards, ensure the efficiency of technological processes, ensure professional competence, competitiveness, adapt to e-learning and distance learning, and monitor the quality of education and staff. Today, it is important to improve the methodological system for assessing the professional competence of future teachers, to meet the needs of the labor market and employers by assessing the level of formation.

Keywords: technological processes, opportunities, professional competence, competitiveness, quality of education, knowledge efficiency, methodological system, level of formation.

Аннотация. Биология таълимини ахборотлаштириши, ахборот технологияларини қўллаш, бўлажак биология ўқитувчиларини методик тайёрлаш, лаборатория машғулотларини ташиқил этиш методикаси бўйича бир қатор тадқиқотлар ўтказилган бўлса-да, бўлажак биология ўқитувчиларининг ахборот маданиятини шакллантириши алоҳида тадқиқот муаммоси сифатида ўрганилмаган. Шунинг учун таълим сифатини баҳолаш, уни халқаро стандартларга мослаш, технологик жараёнларнинг самарадорлигини таъминлаш, профессионал компетентликни, рақобатбардошликни таъминлаш, электрон таълим ва масофавий таълимга мослашиши, таълим ва ходимларнинг сифатини кузатиш учун дунёда кенг қамровли тадқиқотлар олиб борилди. Бугунги кунда бўлажак ўқитувчиларнинг касбий компетентлигини баҳолашнинг методик тизимини такомиллаштириш, шакланганлик даражасини баҳолаш орқали меҳнат бозори ва иш берувчиларнинг эҳтиёжларини қондириш муҳим аҳамиятга эга.

Калим сўзлар: технологик жараёнлар, имкониятлар, касбий компетентлик, рақобатбардошлик, таълим сифати, билим самарадорлиги, методик тизим, шаклланиш даражаси.

Аннотация. Хотя было проведено ряд исследований по информатизации биологического образования, применению информационных технологий, в методической подготовке будущих учителей биологии методы организации лабораторных занятий, формирование информационной культуры будущих учителей биологии не изучалась как отдельная исследовательская проблема. Поэтому в мире были проведены обширные исследования для оценки качества образования, приведения его в соответствие с международными стандартами, обеспечения эффективности технологических процессов, обеспечения профессиональной компетентности, конкурентоспособности, адаптации к электронному обучению и дистанционному обучению, а также мониторинга качества образования и персонала. Сегодня важно совершенствовать методическую систему оценки профессиональной компетентности будущих педагогов, удовлетворять потребности рынка труда и работодателей путем оценки уровня сформированности.

Ключевые слова: Технологические процессы, возможности, профессиональная компетентность, конкурентоспособность, качество образования, эффективность знаний, методическая система, уровень сформированности.

One of the main problems of modern education in the country is the training of highly professionally competent teachers through the assessment and monitoring of the quality of education. It is necessary to develop new technologies, a new system of competency assessment based on the competency-methodological paradigm of the quality of professional training of future biology teachers. At the same time, each educational institution focuses on the practical solution of the problem of assessment of professional competencies in the field of education and professional activity, the creation of an assessment fund. In the course of our research, we studied the preparation of students for professional activity as a set of criteria, processes, methods and technologies for the assessment of professional competencies, focused on the formation of a fund of assessment tools, the development of a monitoring program. The specific features of the developed competency assessment system are:

a systematic approach to the assessment of learning outcomes (complex assessment of the level of formation of general and professional competencies); use basic education programs as a meaningful and criterion for assessing the planned outcomes (competencies) of mastering; assessment of educational achievements in general professional disciplines on the basis of a competency-based approach characterized by the ability to perform professional tasks; monitoring the level of professional competencies; a hierarchical approach to the development of planned results, tools and their presentation; use of a comprehensive assessment system (portfolio) describing the dynamics of the development of competencies; use of active, interactive forms of education; use of advanced educational technologies, design technologies.

In the «Procedure for the organization and implementation of educational activities in hig-

her education curricula» competencies are divided into two - the results of mastering the entire curriculum and the results of training in a particular subject (practice). The result of the study is the mastery of a certain part of the program and the corresponding intermediate and current assessment. The relationship between learning outcomes and competency outcomes is as follows: In order for a student to develop competencies, it is necessary to achieve certain results in a number of disciplines (practices). Thus, competence is a category that is understandable to the employer, and learning outcomes are a category that is understandable to the university teaching community.

In other words, competence arises from results, and results are a necessary and sufficient condition for the formation of competencies. In turn, the results of study in individual subjects are checked during the current, intermediate and final certification. This is done through tests, tests, oral questions, coursework, and so on. Competence is formed as a result of mastering a number of subjects, so a map of competencies should be created by a group of teachers working in related departments and even in several faculties. During the study process and during the current and intermediate attestation, it is not the competencies themselves that are examined, but the corresponding learning outcomes that are formed during the study of academic subjects.

Psychological and pedagogical studies of the problems of professional training of future teachers are multidimensional and entail a variety of approaches to their analysis. This determined the realization that in modern conditions the process of professional training requires a rethinking of the existing scientific experience and the development of new pedagogical ideas and other methodological positions due to the change of the educational paradigm. In this regard, the problem of improving the professional training of a biology teacher is relevant and stands out among the priority areas of modern scientific thought.

In the study of the problem of improving the professional training of biology teachers in modern conditions, a special place is occupied by the issues considered in the following aspects: the development of a biology teacher's professionogram (N.A. Rykov, A.I. Shcherbakov); the system of professional training in a biology teacher's uni-

versity for a rural school (V.A. Kalmykova, S.A. Gorelova); methodological training of biology teachers in a pedagogical university (L.A. Besedina); the application of a competence-based approach to the construction of continuous biological education (V.B. Zakharov); the current state of biological training in pedagogical universities based on the analysis of the content and results of the introduction of state educational standards and competence approach (T.V. Varduni); methodology of competence approach in higher professional level natural science pedagogical education (P.V. Stankevich); modernization of biological education in modern conditions (E.M. Vechkanov, L.N. Kharchenko); formation of subject competence in future bachelors of pedagogical education - biological profile (S.R. Bakhareva).

In Kyrgyzstan, the problem of professional training of future teachers was studied by scientists and teachers in the context of the prospects for the renewal and development of higher education in our country. Noteworthy are the works devoted to the processes of development and improvement of the education system of the Kyrgyz Republic (I.S. Boldzhurova, I.B. Bekboev, J.K. Kanimetov, V.L. Kim, E.M. Mambetkunov, A.M. Mamytov); some areas of professional and pedagogical teacher training based on folk traditions (A. Alimbekov, A.T. Kaldybayeva, T.V. Pankova, T.E. Umetov, H.F. Anarkulov); theory and practice of professional training of teachers of various specialties in the pedagogical university (Sh. Aliev, D.U. Baisalov, E.E. Sin, R.N. Toksonbayev, K.M. Torogeldieva, A.Ysykeyev); professional and personal formation of future teachers at the university (N.K. Dyusheeva); formation of ecological and legal culture of future teachers in the process of their professional training (M.Zh. Chorov); improvement of the content and technology of biological education in secondary school (M. Subanova).

At the same time, it should be noted that today there are no special targeted studies among domestic teachers devoted to the professional training of a biology teacher of a new formation, of a new type, with a set of competencies that he acquired in the process of studying at a university.

According to the results of the TUNING international project, within the framework of which the search for pan-European methodological ap-

proaches to the design of competencies is carried out, 30 types of competencies have been identified, combined into three groups: systemic, instrumental, interpersonal. In the layout of the standard of higher professional education in Russia in the direction of «Pedagogical education», competencies are represented by two groups: versatile and professional. Universal competencies are divided into general scientific, instrumental, socio-personal, and general cultural. Following the Russian developers of standards, in the model of the state educational standard of higher education (GOS HPE) of the first stage of the Kyrgyz Republic, developed on the basis of the competence approach, in the preparation of bachelors of biology, the requirements for the development of the educational program are proposed to focus on the formation of the same universal and professional competencies.

The formation of general cultural and professional competencies of a bachelor of pedagogical education is necessary for his formation as a teacher, the development of his pedagogical knowledge and skills, mastering the methods of pedagogical support of the educational process. But in order for a teacher to become a subject specialist, for example, a biology teacher who owns only educational material, this, of course, is not enough. The teacher, first of all, must have knowledge, skills and abilities in the field of special (biological) disciplines to the extent necessary for professional activity, i.e. he should have special competencies that emphasize the specifics of the subject area (biology). However, neither the general professional competencies of university graduates, which are invariant to the direction of training and ensure the readiness of graduates to effectively solve the general pedagogical tasks facing any specialist with a pedagogical education, nor special competencies reflecting the specifics of a specific subject area of the teacher's activity, are independently determined in the State Educational Institution of the pedagogical direction (profile «Biology»).

In this regard, it should be noted that at the present stage, along with the consideration of the classification of competencies, there is no consensus on which term to use to denote the competencies of a teacher in a subject area of knowledge that characterizes a specific profile of professional

training. So, according to the text of the sources considered, one can see: subject, specialized, profile, functional, narrow professional competencies; subject-activity competence - I. A. Zimmaya; subject component of competence - V.A. Adolf; A. P. Tryapitsyn's special competence; subject competence in a specific case (specialty) and profile competence in the light of modern orientation to profile training - G. K. Selevko; subject-methodological competence - N. L. Galeeva; subject-specific educational competencies - A.V. Khutorskoy. It can be argued that all the listed terms are identical, they can be considered as having the same meaning. We will call the concept of «special competencies» the most acceptable for designating the arsenal of competencies of a teacher. We will adhere to the classification of competencies proposed in the work of O.I. Martynyuk [5], since it makes it possible to clearly define the place and role of special competencies that a subject teacher should possess in connection with the rapidly changing conditions of society and, as a consequence, changing requirements for the content of pedagogical activity.

Learning outcomes correspond to specific levels (stages) and aspects (elements) of competencies and can be compared to specific components of the curriculum (sciences, practices, ITI, independent work, etc.). Learning Outcomes are a description of the knowledge, skills, and abilities of a student who has completed a certain stage of study. Learning outcomes are measurable parameters, the achievement of which means that the planned competencies have been formed.

Individual program elements (modules or disciplines and practices) and learning outcomes for specific (professional) competencies are important elements of curriculum design. Achieving the planned learning outcomes in all elements of the curriculum ensures that upon graduation, the student develops the competencies that are the main objectives of the curriculum.

The role of information and communication technologies in the teaching of biology. The harmonious use of pedagogical and information technologies is an important task in the normative documents adopted to increase the effectiveness of the learning process in the system of continuing education. Indeed, in an era of information globalization, increasing the effectiveness of teaching

using pedagogical and information technologies in the educational process is a pressing issue. The use of information technology in the teaching of natural sciences, including biology, requires consideration of the specifics of the content of biology education: working with living objects, observing life processes in them, experimenting, and so on.

The information technology used in teaching biology has the following functions:

➤ Educational: the opportunity to provide students with a comprehensive knowledge of the main and additional materials on the subject, the basic concepts and their interpretations, various tables, diagrams, experiments of a complex scientific and industrial nature occurs;

➤ Orientation of students' learning activities: educational, modeling and control programs, which are products of students' information technology, as well as work with animation, these programs also organize and manage students' learning activities integrates, that is, directs students to acquire deep and solid knowledge;

➤ Demonstration: unlike other teaching aids, animations, which are products of information technology, depict moving and dynamic biological processes, so its role in the teaching process is unique;

➤ Supervision: all forms of biology education: lessons, extracurricular activities, extracurricular activities, as well as monitoring and evaluation

of knowledge, skills and abilities of students at all stages of the lesson, the validity, regularity, comprehensiveness of control, realizes reproducibility;

➤ Developer: according to the level of difficulty of the tasks in the control programs of knowledge, skills and abilities acquired by students: reproductive, productive, partially exploratory and creative in nature, the students' knowledge, needs and increases the desire to perform the tasks of the next stage in accordance with the interests, creates the basis for a solid mastery of the basics of science and creates opportunities for personal development;

➤ Educational: as a result of students working with information programs, learning and intellectual work skills are developed;

➤ Development of the scientific worldview: the study of nature and the objects in it is divided into two worlds (macro and microcosm), and biology, according to its content, is often a microcosm: processes in the cell, such as metabolism and energy, photosynthesis, develops students' abstract thinking and scientific outlook by teaching teaching materials on protein biosynthesis, biotechnology and genetic engineering through animation. Taking into account the above-mentioned tasks of information technology in the teaching of biology, the identification and implementation of ways to use it in the educational process is an urgent task today.

References:

1. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated December 8, 2018 No 997 «On measures to organize international research in the field of assessing the quality of education in the public education system.»
2. Ermakov A. S., Ermakov D. S. Features of teaching biology in Great Britain // *Biology in school*. - 2011. - №1. - S. 38 –43.
3. Nosirov A. "Students' knowledge and competencies are assessed on the basis of international criteria" / Ministry of Public Education of the Republic of Uzbekistan: www.uzedu.uz.
4. Tolipova J.O., G'ofurov A.T. *Biology Teaching Methods*. Higher education textbook for lands. Tashkent, TDPU, 2012.
5. Tolipova J.O., Azimov I.T., Sultonova N.B. *Biology lessons. (Teacher book) Methodological manual for teachers. (9th grade)* Tafakkur Publishing House. Tashkent-2016 y.
6. Shakhmurova G., Rakhmatov U., Khojanazarov O., Togayeva G. "Biology Educational-methodical complex on the module «Methods of teaching science». Tashkent retraining of public educators at the State Pedagogical University Regional Center for Training and Advanced Training, Tashkent, 2018.

