

## Development Of Artistic And Aesthetic Competence Of Future Teachers

Rabbimova F.T<sup>1</sup>, Mavlonova S.Kh<sup>2</sup>, Makhammadiev D.M<sup>3</sup>, Ikromov D.N<sup>4</sup>  
Ravshanov Sh.I<sup>5</sup>

<sup>1,2,3</sup> *Jizzakh State Pedagogical Institute, teacher*

<sup>4,5</sup> *Jizzakh State Pedagogical Institute, student*

### **Abstract**

*The resultative criterion of the model for improving the artistic-aesthetic competence has been improved based on the optimization of educational (enriching the knowledge on artistic-aesthetic activities), normative (raising the axiological consciousness of students on environmental protection) and practical (environmental protection by students, researching) activities;*

*The interdisciplinary modular educational technology of improving the artistic-aesthetic competence in future teachers has been enhanced through the identification of motivational, cognitive and activity-based components of organizing virtual excursions.*

### **1. Introduction**

From the point of view of training future teachers, competence is ahead of social requirements (norms) for the effective organization of the process of teaching general subjects and vocational training in the continuing education system. Based on the analysis in connection with the object of study, the following definitions of the concepts of “competence” and “competence” are formed: competency - the ability to solve professional problems in teaching general professional disciplines, expressing willingness to change labor market conditions and innovative activities; Competency - possession of key (supporting, basic), intersubject, general professional and subject competencies.

The results of the study allow us to name as factors for improving the artistic and aesthetic competence of future teachers the totality of motives and personal qualities necessary for the independent implementation of the artistic and aesthetic activity of future teachers; knowledge and skills in the field of artistic and aesthetic activities; ability and level of readiness to apply the acquired knowledge and skills in practice in the process of artistic and aesthetic activity.

Based on the analysis, it was concluded that the artistic and aesthetic competence of the future biology teacher reflects the ability and willingness to apply knowledge, skills in the field of artistic and aesthetic activities in solving problems of organizing education on the basis of the necessary personal and professional qualities.

Based on the analysis of various approaches to the problem, it was found that the structure for improving the artistic and aesthetic competence of future teachers consists of motivational, cognitive and activity components (Table 1).

The results of the study showed that the motivational component of the artistic and aesthetic competence of future teachers is reflected in the formation of needs and interest in artistic and aesthetic activities; developing interest in the teaching profession and engaging in educational activities; the desire for the formation in the educational process of artistic and aesthetic knowledge, skills of students; cognitive component - in mastering theoretical knowledge in the field of foundations of artistic and aesthetic activity; assimilation of the structure, forms and systems of scientific and artistic-aesthetic knowledge; knowledge of the stages, methods and design techniques of artistic and aesthetic activities in the educational process; activity component - in the ability to generate artistic and aesthetic ideas in solving

the problems of organizing the educational process on the basis of creative, conceptual approaches; the ability to make functional and systemic decisions in the process of designing artistic and aesthetic activities; mastering the ways of artistic and aesthetic solutions to educational problems.

**Table 1: The content of components for improving the artistic and aesthetic competence of future teachers**

<b>Component компетенции</b>	<b>Content</b>
<b>Motivational</b>	Introduction to artistic and aesthetic activities; harmonization of the process of teacher education and artistic and aesthetic activities; regulation of motives and value-oriented aspects of artistic and aesthetic activity.
<b>Cognitive</b>	Knowledge of the basics of artistic and aesthetic activities; the assimilation of methods for harmonizing the structure, forms and systems of scientific and artistic-aesthetic knowledge; knowledge of the stages, methods and techniques of designing artistic and aesthetic activities in the educational process.
<b>Active</b>	Creative approach to solving problems of organizing the educational process; the ability to apply functional and systemic solutions in the design process of artistic and aesthetic activities; mastery of the methods of artistic and aesthetic solutions to educational problems.

Studies have shown contradictions between approaches based on traditional and synthesized principles and integrated approaches to the formation of a teacher's professional formation, in particular between the objective needs of society in shaping the personality of subjects of educational activity and the incomplete correspondence of the capabilities of the modern educational system; levels of the ability of education to prepare specialists for professional activities in the context of intensification of the pace of development of society and a rapidly changing environment; between the tendency of specialization in narrow scientific fields and the acquisition of necessary knowledge in the field of the basic branches of the material and spiritual culture of mankind. The need to create an innovative and developing environment and the lack of scientific and methodological support for this educational environment dictate the need to find new ways to prepare future teachers.

Improving the artistic and aesthetic competence of future teachers should be based on creative, reflective, synergistic and historical approaches. The results of the study indicate the impossibility of organizing a system for improving the artistic and aesthetic competence of future teachers only on the basis of general didactic principles, the possibility of achieving the expected results while ensuring their organicity with particular principles of instruction: causal relationships of processes and phenomena of living nature and historicity; natural visibility; primary living; seasonality of natural phenomena; study of local lore, ecologization and nature conservation, harmony with nature, fundamental nature, continuity and continuity of the content of education.

In the second chapter of the dissertation "**Practical and technological system for improving the artistic and aesthetic competence of future teachers**", a theoretical model, intersubject modular educational technology and didactic support for improving the artistic and aesthetic competence of future teachers are developed.

In the course of the study, a model was developed to improve the artistic and aesthetic competence of future teachers, based on the blocks of goal-setting, the choice of educational material, organizational-activity, evaluative, and concretization of the expected results (Table 2).

This model in the form of an open system is based on the didactic parameters of the organization of the educational process and allows you to make changes and additions to the content of the blocks.

The first block of the model reflects the purpose and objectives of the development of artistic and aesthetic competence of future teachers. Achieving this goal involves solving problems such as the formation of needs and desires to engage in artistic and aesthetic activities; development of interest in the profession of a biology teacher and a desire to do this business; consolidation of professional knowledge and skills; the formation in the educational process in the field of laws and principles, methods and techniques for designing artistic and aesthetic activities; solving the problems of the educational process on the basis of conceptual and creative approaches, the formation of the ability to develop an artistic and aesthetic nature; the formation of skills of independent organization of the process of work on tasks of an artistic and aesthetic nature; mastering the ways of organizing the educational process based on materials of artistic and aesthetic content.

The block for selecting the teaching material of the model for improving the artistic and aesthetic competence of future teachers involves specifying the content of education based on a personality-oriented approach. This process is implemented within the disciplines “Methodology of teaching biology”, “Solving problems and examples in biology”, “Technologies and designing teaching of biology” and requires attention to the following aspects: clarification of the artistic and aesthetic aspects of the studied educational material; ensuring intersubject communication in the content of education and reliance on the principle of integrativity; presentation of creative, problem-searching tasks that require not only theoretical, but also artistic and imaginative thinking of students; the formation of cognitive (cognitive) problems based on emotionality, personal significance.

**Table 2: Theoretical model for improving the artistic and aesthetic competence of future teachers**

<b>Goal setting block</b>			
Social order		Qualification характеристика	Qualification требования
<b>purpose</b>	Development of artistic and aesthetic competence of future teachers		
<b>Задачи</b>	Formation of a positive motivation for professional activity	The formation of professional knowledge and skills	An experience practice
<b>Training material selection block</b>			
<b>Components Компетенции</b>	Motivational	Cognitive	Active
<b>Training disciplines</b>	General professional disciplines, methods of teaching biology, special disciplines for solving problems and examples in biology; technology and design teaching biology		
<b>Didactic материал</b>	Educational-methodical complexes, teaching aids and recommendations		
<b>Organizational and activity unit</b>			
<b>Kind of activity</b>	Training and Professional		
<b>Organizational Forms education</b>	Problematic lecture, visual lecture, interactive lecture	Heuristic and reflective workshop	Creative work
<b>Teaching methods</b>	Problem-search, logical, independent work and interactive		

<b>Assessment Criteria Block</b>			
<b>Criteria</b>	Motivational	Cognitive	Active
<b>Indicators</b>	Need, interest in artistic and aesthetic activities	Theoretical knowledge in the field of artistic and aesthetic activities and their methods of assimilation	Application of stages, methods and techniques of designing artistic and aesthetic activities
<b>Levels</b>	Low	Middle	High
<b>Expected Results Concretization Block</b>			
<b>Intermediate</b>	The formation of knowledge, skills artistic and aesthetic activities of future teachers		
<b>Summary</b>	Formation of artistic and aesthetic competence future teachers		

In the organizational-activity block of the model for improving the artistic and aesthetic competence of future teachers, the types of artistic and aesthetic activities of professors, teachers and students, as well as forms, methods and means of a private methodology corresponding to the goal have been selected. The fourth block of the model is called "Evaluation Criteria", it reflects the criteria, indicators for improving the artistic and aesthetic competence of future teachers and the procedure for determining the levels of mastery, showing motivational, cognitive and activity criteria for improving artistic and aesthetic competence. The block of assessment criteria made it possible to diagnose the level of improvement of the artistic and aesthetic competence of future teachers at all stages of education. The unit for determining the expected results of the presented model served to determine the correspondence of the intermediate and final results of improving the artistic and aesthetic competence of future teachers to the set goal. In educational practice, three levels of application of modular educational technology are defined: within the framework of a certain topic (defined by topics), within the framework of discipline (block-modular) and intersubject. From the point of view of the object of study - improving the artistic and aesthetic competence of future teachers - the modular educational technology is studied taking into account these three levels. It was concluded that the result should be the development of an interdisciplinary modular educational technology for improving the artistic and aesthetic competence of future teachers. Based on the analysis of the experience of applying modular educational technology, an interdisciplinary modular educational technology was developed to improve the artistic and aesthetic competence of future teachers, adopting the methodology of teaching biology and integrating the capabilities of the disciplines of the block of humanitarian and socio-economic disciplines (philosophy - ethics, aesthetics, logic), cultural studies; block of mathematical and natural sciences (age physiology and hygiene, ecology and environmental protection); block of general professional disciplines (general pedagogy, general psychology); block of special disciplines (solving problems and examples in biology) . This interdisciplinary modular educational technology is reflected in artistic and aesthetic competence, which performs a basic function that can influence the training of future teachers, their behavior, artistic and aesthetic education, and personal qualities. Undoubtedly, such an influence is realized within the framework of the interdisciplinary modular technology, which incorporates the material of the disciplines "Methods of teaching biology, philosophy (ethics, aesthetics, logic)", "Cultural studies", "Age-related physiology and hygiene", "Ecology and environmental protection" , "General pedagogy", "General psychology", "Solving problems and examples in biology", "Technology and design of teaching biology". It should be emphasized that even in the framework of lectures and seminars held in non-traditional search-research and creative forms, it is difficult to improve the artistic and aesthetic competence of future teachers at a fairly deep level and professionally oriented, taking into account these aspects, as well as students' desire to study artistic and aesthetic activities in extracurricular times. It was concluded that as a path to improving artistic and aesthetic competence in extracurricular time, it is necessary to develop a special course that draws attention to the practical activities of students, contributing to their development in the general cultural, professional and social plan. Therefore, as part of the study, a special course was created, "Technology for Organizing Virtual Tours," designed to be

studied optionally in extracurricular time. A virtual tour creates the opportunity to form artistic and aesthetic competence through analysis, synthesis and evaluation of information by modern technologies. Preparation for a virtual tour is a creative process, develops initiative, innovative thinking, guarantees the achievement of specific results. In turn, the organization of excursions allows enriching the artistic and aesthetic thinking of students, develops a sense of responsible attitude to the environment, fosters such personal qualities as attentiveness, goodwill, tolerance, cooperation in the classroom, and evaluation of its results - all this allows students to evaluate their capabilities, develop critical thinking. A virtual tour plays an important role in the formation of not only general cultural competencies of students, but also artistic and aesthetic competencies in the field of independent finding and using various sources of information on artistic and aesthetic activities; effective communication with subjects of artistic and aesthetic activity; determination, analysis and processing of scientific and technical information in the field of artistic and aesthetic activities using information and communication technologies. The third chapter of the dissertation, "The Effectiveness of the Development of the Artistic and Aesthetic Competence of Future Teachers," describes the results of ascertaining and teaching experiments. The ascertaining experimental work on improving the artistic and aesthetic competence of future teachers was carried out in three stages: at the first, motivational stage, materials were tested on the subject "Artistic and aesthetic competence of students is a priority task of education"; at the second, cognitive stage, events were organized aimed at developing artistic and aesthetic perception on the topics "Nature and the plant world - the first teacher of beauty", "Uzbekistan, native land, the beauty of nature", "Aesthetics of nature. Awareness of the aesthetics of the plant world: aesthetic perception of vegetation "; at the third, activity stage, the theme was chosen "Preparing students for the organization of extracurricular activities of students in the study of plants."

The results of the ascertaining experimental work showed that the artistic and aesthetic competence of first-year students of the experimental and control groups is formed equally at a low level (Table 3).

**Table 3: The current state of artistic and aesthetic competence of artistic and aesthetic activity (ascertaining stage)**

Group	Amount students	The level of artistic and aesthetic competence					
		Low		Middle		High	
		abs.	%	abs.	%	abs.	%
Control	120	36	30	72	60	12	10
Experimental	120	42	35	66	55	12	10

At the training stage, the effectiveness of the theoretical model and interdisciplinary modular educational technology developed to improve the artistic and aesthetic competence of future teachers was determined. For this, a repeated statistical analysis of the level of development of artistic and aesthetic competency was carried out based on the results of creative, search tasks presented by students. The results of the training experiment were analyzed after students studied the disciplines "Teaching Biology", "Philosophy (Ethics, Aesthetics, Logic)", "Cultural Studies", "Age-related Physiology and Hygiene", "Ecology and Environmental Protection", "General Pedagogy", " General psychology ", " Solving problems and examples in biology ", " Technology and design for teaching biology " and passing qualifying teaching practice. To the ascertaining experiment, 240 4-year students of the Jizzakh State Pedagogical Institute, Navoi State Pedagogical Institute, and Gulistan State University were involved. The results of the stating experiment are given in table. 4.

**Table 4: The level of improvement of artistic and aesthetic competencies of future teachers (training phase)**

Group	Amount students	Level of improvement					
		Low		Middle		High	
		abs.	%	abs.	%	abs.	%
Experimental	120	12	10	48	40	60	50
Control	120	24	20	66	55	30	25

A comparative analysis of the level of development of artistic and aesthetic competence of students in experimental and control groups was carried out according to the results of the training and ascertaining stages (Table 5).

**Table 5: The level of development of artistic and aesthetic competence future teachers (comparative analysis)**

Group	Кол-во	Level of improvement											
		ascertaining stage						training stage					
		Low		Middle		High		Low		Middle		High	
		abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%
eg	120	36	30	72	60	12	10	12	10	48	40	60	50
kg	120	42	35	66	55	12	10	24	20	66	55	30	25

Given in the table. 6 data indicate positive changes in the development of artistic and aesthetic competence of future teachers. You can see how the number of students with a low level of development of artistic and aesthetic competence in experimental groups decreased from 30 to 10 percent, in control groups from 35 to 20 percent. The average level of development of artistic and aesthetic competence in experimental groups was reduced from 60 to 40 percent, in control changes it was not observed. Also, the number of students with high results in experimental groups increased from 10 to 50 percent, and in control groups from 10 to 25 percent. It should be emphasized that in the experimental groups there was observed the dynamics of positive changes in the level of artistic and aesthetic competence of students of the experimental group. The results were mathematically analyzed using the SPSSStatistics (Statistical Package for the Social Sciences) software. The results of the mathematical-statistical analysis of the results of students of the experimental and control groups of the teaching and ascertaining stages are given in table. 6. According to the table. 6, at a ascertaining stage, no significant difference was observed in the levels of artistic and aesthetic competence of students in experimental and control groups. The results of the training phase confirmed the presence of a significant difference in the levels of improvement of the artistic and aesthetic competence of students in experimental and control groups ( $p > 0.001$ ). The results obtained allow us to conclude that the level of improvement of the artistic and aesthetic competence of students in experimental groups is higher than that of students in control groups.

**Table 6: The level of improvement of the artistic and aesthetic competence of future teachers (comparative analysis of the results ascertaining and training experiments)**

Course	Group	Number of students	Level of improvement
			Score
Ascertaining stage			
1	eg	120	172,6±8,01
1	kg	120	172,2 ±7,87
Training stage			
4	eg	120	239,5±8,80***
4	kg	120	190,7±10,48***

Note. \*\*\* – significant difference  $p > 0,001$ .

In the structure of improving the artistic and aesthetic competence of future teachers there are three components - motivational, cognitive and activity. The development of the artistic and aesthetic competence of future teachers, reflecting the main goal of education, serves as a full understanding of the biological nature of sustainable development and socio-economic phenomena and harmonization with practical activities.

In the research process, based on an analysis of research and practical activities in the field of developing the artistic and aesthetic competence of future teachers, it was concluded that, when improving the conditions for creating a system for developing the professional competence of future biology teachers, it is necessary to rely on modern approaches and special principles; this system should pursue educational, educational and developmental goals; special attention should be paid to the formation of important professional qualities in future teachers: innovative thinking and artistic and aesthetic competence.

## References

1. Karimov.I.A. Uzbekistan on the threshold of the XXI century: a threat to security, conditions of stability and guarantees of development. Tashkent. Uzbekistan. 1997-326 b.
2. Karimov.I.A. Harmoniously developed generation is the basis of development of Uzbekistan. Collection of documents. Tashkent. East. 1997 - 319 p.
3. Karimov I.A. Uzbekistan is moving towards the 21st century. Tashkent. Uzbekistan. 1999 - 48 p.
4. National program of personnel training.// Harmoniously developed generation // Collection of documents. Tashkent. East 1997 - 32-61 p.
5. Mirziyoev.Sh.M. Critical analysis, strict discipline and personal responsibility should be a daily rule of every leader. T-Uzbekistan. 2017-102 b.6. Rabbimova F.T., Preparing future biology teachers for students to learn about the aesthetics of their native nature. The psychologist tarakkiet va talim muammolari. - Toshkent: Tamaddun, 2016. - B. 57–60.
6. Rabbimova F.T. The training of future biology teachers to the knowledge of students aesthetics of a happy nature. Actual problems of modern science. - Moscow, 2012. No. 3. - S. 75–77.