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## ON THE ISSUES OF USING INNOVATIVE TECHNOLOGIES IN THE SYSTEM OF ACADEMIC VOCAL EDUCATION

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### Abstract

This article explores the integration of traditional methods and innovative technologies in academic vocal education. The classical teacher–student model is being enriched with digital platforms, vocal simulators, and virtual reality tools. These modern approaches make the learning process more effective, analytical, and creatively engaging, thereby enhancing students’ vocal skills and overall performance quality.

**Keywords:** *academic vocal training, traditional methods, innovative technologies, digital education, vocal simulators, online learning, virtual reality*

Academic vocal art has rich traditions that have been formed over the centuries. In this field, many aspects such as the correct use of the voice, diction, breathing, repertoire selection, stage culture are of primary importance. At the same time, the introduction of digital technologies into the educational process in the 21st century is also changing the methods of teaching academic vocals. The article analyzes the harmony of traditional methods and modern innovative technologies.

In the academic vocal education system, traditional methods rely mainly on the teacher-student tradition. Classical exercises, *ladavi* and arias are used to develop the singer’s voice. In these methods:

1. Physical exercises – diaphragmatic breathing, vocalization with a wide throat;

2. Music education – reading notes, sense of rhythm, diction;
3. Teacher example – the singer observes the teacher and gains practical experience from him.

Although these methods have produced many generations of singers, they need to be enriched with modern methods to keep up with the times. In recent years, innovative technologies have been widely used in the field of education – digital platforms, simulators, and audio-visual analysis tools. In the field of academic vocals, the following are of particular importance:

“Innovative technologies play an important role in the development of academic vocal education. They offer new methods and tools for teaching and improving vocal skills. These technologies, along with making the educational process effective, interesting and

accessible, also serve to develop the creative abilities of students” (Mansurova A. P., Chervatyuk P. A., 2021, 64–73).

1. Vocal simulators: programs that visually analyze vocal production;
2. Online learning platforms: vocal lessons via Zoom, Google Classroom;
3. Audio analysis technologies: the ability to analyze voice frequency, vibration, and diction.

These technologies allow students to monitor their voices visually and technically, facilitating objective assessment.

Today, there are programs and applications that analyze voice data, which analyze parameters such as pitch, timbre, dynamics, and provide real-time feedback. This helps students to better understand their strengths and weaknesses, and teachers to more accurately correct vocal performance.

Online learning platforms allow students to access learning materials, lessons, and advice from anywhere in the world. This is especially important for students who cannot attend regular classes or live in remote areas. Modern recording and playback tools allow students to analyze their vocal performances in detail, identify errors, and work on them.

This, in turn, helps them better understand and develop their own voice. “In the study, 50 students were trained for 8 months under the guidance of a vocal teacher and using a digital platform to perform vocal exercises. Their vocal skills were assessed on 15 parameters, including: stability of voice tone,

range, breathing technique, and others. According to the analysis, the average increase in indicators in this group was 24.5%, which was significantly higher than the 15.7% increase in the group of students who participated only in traditional classes with a teacher” (Yan Shannin 2023). Similar results were also noted in the process of studying the effectiveness of integrated education at the Moscow Institute of Opera Singing.

Here, 104 students combined traditional lessons with a vocal teacher with independent practice using digital tools. They progressed 1.3 times faster in mastering vocal skills, confirmed by vocal-metric analysis results.

“Similar results were observed in the experiment with the participation of 60 school-children who studied vocals remotely via video chat. The efficiency of mastering the material in their group was 81.3%” (Gemaddiyev D. I. 2021, 211–213). According to the analysis of the test results of 12 parameters of vocal technique, the average educational efficiency of both groups was 84.3% and 83.7%.

At the same time, students who studied in a distance learning format emphasized the high level of psychological comfort in the educational process (8.5% more on the Likert scale) and the flexibility of the class schedule.

The main goal of academic vocal education is not only technical perfection, but also creative maturity and formation of individuality. Traditional methods and innovative technologies complement each other in achieving this goal:

<b>Traditional education</b>	<b>Modern education</b>
Teacher’s example	Audio/video analysis tools
Physical exercises	Simulator and visual aids
Live assessment	Spectrographic analysis
Education based on the repertoire	Digitized sheet music

Through this combination, students not only enjoy traditional methods, but also have the opportunity to monitor their own progress and work in the right direction.

In recent years, innovative tools have been gradually introduced into conservatories and art institutions in Uzbekistan. In particular:

1. Digital audio laboratories at the State Conservatory of Uzbekistan;

2. Introduction of online vocal lessons;
3. Training in new technologies is being carried out through seminars and trainings for teachers.

At the same time, there are a number of problems at present:

- technically adequate supply, lack of digital literacy of teachers and lack of content etc.
- Understanding the formal and aesthetic characteristics of vocal performance further

strengthens the creative connection between performer and composer. Academic vocal performance has played a leading role on the international music scene for centuries, not only in terms of genres, but also in terms of styles, performance schools, and musical aesthetics. The study of this historical and cultural heritage is of urgent importance not only for musicologists, but also for performers and music educational institutions.

In conclusion, the introduction of innovative technologies in the academic vocal education system serves to enrich traditional methods. However, in this process, it is

important to maintain balance, improve the training of teachers, and develop technological infrastructure. By individualizing the educational process and building it on a visual basis, students develop the ability to analyze independently. The use of innovative technologies in academic vocal education not only increases the effectiveness of education, but also turns it into an interesting and motivating process for students. This approach develops such important qualities as creative thinking, self-analysis, and the desire for improvement. This is necessary for the successful creative activity of a vocal performer.

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