Features of the applying the information and communication technologies in the conditions of distance master’s training of choir and orchestra conductors

Características de la aplicación de las tecnologías de la información y la comunicación en las condiciones de formación de máster a distancia de directores de coro y orquesta

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Abstract

The purpose of the academic paper, based on the results of the analysis of the viewpoints of scientists regarding the selection and application of information and communication technologies in the conditions of distance education of choir and orchestra conductors and the study of practical aspects of the master’s training of specialists in choral and orchestral conducting, lies in revealing and identifying the main features of the professional training of this type of specialists. Methodology. In the process of conducting the research, an analytical and bibliographic method has been used to study the scientific literature on the issues of distance master's training of choir and orchestra conductors, as well as a questionnaire to conduct a survey of choral and orchestral conductors. Results. Based on the results of the research conducted, the features of the choice and application of information and communication technologies in the conditions of distance master's training of choir and orchestra conductors have been analysed, and basic information has been prepared on the effectiveness of using various information.

Keywords: information and communication technologies, use of information tools in distance learning, conducting and choral activity, innovative tools, an orchestra conductor's activities.

Resumen

El propósito del trabajo académico, basado en los resultados del análisis de los puntos de vista de los científicos sobre la selección y aplicación de las tecnologías de la información y la comunicación en las condiciones de educación a distancia de directores de coro y orquesta y el estudio de los aspectos prácticos de la formación de maestría. de especialistas en dirección coral y orquestal, radica en revelar e identificar las principales características de la formación profesional de este tipo de especialistas. Metodología. En el proceso de realización de la investigación se ha utilizado un método analítico y bibliográfico para estudiar la literatura científica sobre los temas de formación de maestría a distancia de directores de coro y orquesta, así como un cuestionario para realizar una encuesta a directores de coro y orquesta. Resultados. Con base en los resultados de la investigación realizada, se han analizado las características de la elección y aplicación de las tecnologías de la información y la comunicación en las condiciones de formación a distancia de maestría de directores de coro y orquesta, y se ha elaborado información básica sobre la efectividad del uso de diversas informaciones.

Palabras clave: tecnologías de la información y la comunicación, uso de herramientas de información en la educación a distancia, dirección y actividad coral, herramientas innovadoras, actividades del director de orquesta.

1. Introduction

The principal criterion for the development of higher pedagogical art education is the quality of training of future specialists, which is determined not only by the body of
knowledge of the basics of pedagogical methods, but also by the ability to transfer this
time, in the process of both live and direct communication with students and in the
process of distance learning.

Music and pedagogical training involves the acquisition of professional competence and
the possession of methodical tools, primarily information and communication
technologies, in order to be able to communicate with teachers during the training
process, as well as with higher education seekers for the transfer of knowledge.

Taking into consideration the development of information technology, the use of the
Internet in distance learning is becoming increasingly popular. With the help of this unique
universal tool, you can transfer information from the teacher to the students anywhere in
the world. The term “distance learning” is often used synonymously with the term “online
learning”, which should not be confused, forasmuch as the provision of education is only
controlled by educational institutions and teachers, and the student is responsible for the
quality and content of the knowledge obtained. In other words, online learning is the result
of distance learning.

In the educational arts industry, the issue of improving the training of art specialists,
especially future choir masters, is extremely relevant nowadays. The formation of a highly
professional conductor is one of the complex problems of music pedagogy; this is due to
the fact that the conductor, among other professions, is one of the youngest and most
difficult directions in the musical field, which requires special training tools.

The theoretical part of the present research represents the viewpoints of scientists
regarding the conditions for self-fulfilment of a conductor, substantiates the need for
innovation-oriented training of future choir and orchestra conductors, considers the
features of using both theoretical and practical methods of conducting and choral activity,
which must be used by a future teacher of fine arts.

The practical part of the research includes an assessment of the effectiveness of using
the information and communication tools during distance training of choir and orchestra
conductors from the point of view of various aspects of professional training, the feasibility
of using the information and communication technologies, the degree of importance of
possessing various types of knowledge as prerequisites for the application of information
and communication technologies during the educational process, the efficiency level of
using the certain types of information and communication tools during distance learning
of choral and orchestral conductors.

Based on the results of the research conducted, it has been established that classes on
the systematization of musical and performing activities and on the study of the theoretical
fundamentals of introductory teaching methods are the most effective during distance
training of choir and orchestra conductors. In addition, the survey has shown that,
according to the respondents’ standpoint, from the perspective of the efficiency of the
distance form of education of the orchestra conductor in the class of choral conducting, the activities with one teacher and one student at one lesson, as well as individual work of students turned out to be the most expedient and appropriate ones. According to the research results, the important prerequisites for using the information and communication technologies in the course of training are as follows: previously acquired knowledge of the main parameters of the conducting process, mastery of technical conducting skills and methods of transmitting syncopation, emphasis, mixing sounds, and technical performance of works at different tempos. Also, according to the survey participants’ viewpoint, Google-meet resources and specialized platforms for orchestra conductors are the most effective during remote training of choir and orchestra conductors.

The purpose of the research lies in determining the standpoint of choir and orchestra conductors regarding certain aspects of using the information and communication technologies during their distance training, namely, in the process of studying under the master’s program.

2. Literature Review

The necessity to implement the professional potential of choir and orchestra conductors as fully as possible during distance master’s training actualizes the issue of using innovations and person-oriented approaches in the educational process (Akbarova, Dyganova, Batyrshina & Adamyan, 2021).

A. Martínez defines the innovative activity of a music teacher as a complex whole system, a set of different types of actions and means that correspond to the development of innovative processes aimed at the creation and implementation by teachers of their own work system in the context of the modernization of art education (Martínez, 2021).

The application of innovative pedagogical technologies as a principle of pedagogy development creates conditions for the development of the individual, the implementation of his right to individual creative participation, initiative and freedom for self-development. The innovative educational activity involves a qualitative change of the student’s personality compared to the previously prevalent, traditional education system. The main goal of the teacher’s innovative activity is to develop one’s own ability to motivate actions, independently orient oneself in the information obtained, and form creative, non-standard thinking using new achievements in science and pedagogical practice (Yavgildina, Batyrshina, Kamalova & Dyganova, 2019), (Jansson & Balsnes, 2021).

The necessity for innovation-oriented training of the future art teacher is determined by the following factors, namely:

- social-economic changes taking place in the world have necessitated a fundamental restructuring of the educational system, methodology and technology of the organization of the educational process in educational institutions;
changes in the scope and composition of educational disciplines dictate the search for new forms of organization and technologies of learning;

today’s innovations are not reduced to recommended innovations, but become obligatory ones;

creation of a competitive situation in connection with market relations in the society and reforms of the secondary school (Dag, Balsnes & Bygdéus, 2018), (Jansson, Elstad & Døving, 2019a).

It is beyond any doubt that the innovative training of future specialists in modern institutions of higher art education is a guarantee of their competitiveness on the labour market (Jansson, Elstad & Døving, 2019b).

Considering the issue outlined, it should be noted that the system of education at the university, especially in the artistic and pedagogical field, has its own specifics. In addition to training the choir and orchestra conductor for activities, it is necessary to prepare him for self-fulfilment as a professional musician. In this process, it is important to form a desire for self-development, self-improvement and development of musical and pedagogical creative abilities in future professionals. The result of self-fulfilment of a teacher-musician should be the need for constant self-development and self-improvement, motivation for the development of creative potential (Talmage & Purdy, 2021).

In this regard, J. Wong and A. Bautista note that distance independent educational activity with the help of innovative technologies gives an innovative impetus, activates the search and awakens interest in new (Wong & Bautista, 2017).

M. Bonshor emphasizes that the innovative efforts of the future conductor may be caused by various motives (increasing the effectiveness of the educational process; trying to attract attention, gain recognition, etc.), the true essence of which is not easy to find out, forasmuch as they may change over time. The positive motivation of the master’s student towards active educational activities with the help of innovative technologies is manifested in the satisfaction of his personal and professional needs, such as the creation and application of new, improving pedagogical skills, overcoming professional difficulties (Bonshor, 2017).

In the conducting and choral activity of a future specialist, it is necessary to use both theoretical and practical methods, especially analysis, comparison, modelling, collection and accumulation of information. Self-fulfilment in practical educational activities consists not so much in repetition, consolidation and assimilation, but in experiencing, evaluating, forming and expressing, which can be successfully implemented only under the condition of comprehensive use of the latest information and communication technologies (Antunes, Quirós & Justino, 2017).
Analysing the possibilities of the educational system regarding the development of artistic competences of future choral and orchestral conductors with the help of distance education, it becomes clear that this form of education, which has become a necessity of the time, can have a temporary nature, especially when studying specialized subjects (Dag & Balsnes, 2020).

3. Materials and Methods

The practical study of modern approaches to the process of professional master’s training of choir and orchestral conductors was carried out by interviewing 462 choir and orchestral conductors engaged in professional activities in art institutions of Kyiv, Lviv, Ternopil and Ivano-Frankivsk regions of Ukraine. The survey was conducted by means of a questionnaire using the Typeform service.

4. Results and Discussion

As the results of the survey have shown, modern teachers-conductors point to the need to improve the training of students – future conductors to work with the choir using the latest information and communication technologies.

In particular, the latest teaching means can be high-quality training tools in numerous aspects of the professional training of future conductors. The answers regarding the expediency of using information and communication mechanisms from the perspective of their effectiveness during the educational process were allocated by the survey participants as follows (Figure 1).

As it can be observed from Figure 1, according to the survey participants’ viewpoint, the classes on the systematization of musical and performing activities and on the study of the theoretical fundamentals of the introductory training methods turned out to be the most effective ones during distance learning mode for choir and orchestral conductors.

Along with this, considering the content of the conductor’s activities in the class of choral conducting, it should be noted that in addition to studying musical material with students, one should talk about quality control of performance, knowledge of the features of the conductor’s gestures, analysis of the causes of difficulties. Some forms of such work are most effective through direct communication.
Figure 1. The effectiveness of using the information and communication tools during distance learning of choir and orchestra conductors from the perspective of various aspects of professional training, %.
Source: it has been compiled by the authors.

Assessing the effectiveness of distance learning for a conductor in the class of choral conducting, in the course of the research it has been established the expediency of using the information and communication technologies (Figure 2).

Thus, the survey has revealed that, according to the respondents’ viewpoint, from the perspective of the efficiency of the distance form of training of a conductor in the class of choral conducting, it is most expedient to work in one lesson with one teacher and one student, as well as provide an individual work of students.

Analysing the prerequisites for the use of the information and communication technologies during training, the respondents pay attention to the fact that a master student should possess knowledge based on previous experience in studying choral conducting, namely, to know fully well as follows (Figure 3).

As it can be seen from Figure 3, the important prerequisites for using the information and communication technologies during the educational process are previously acquired knowledge of the main parameters of the conducting process, mastery of technical
conducting skills and methods of transmitting syncopation, emphasis, mixing sounds, and technical performance of works at different tempos.

**Figure 2.** The expediency of using the information and communication technologies from the perspective of the efficiency of the distance form of training of a conductor in the class of choral conducting, %.
Source: it has been compiled by the authors.

**Figure 3.** The degree of importance of mastering various types of knowledge based on previous experience of studying choir conducting as prerequisites for the use of information and communication technologies during the educational process, %.
Source: it has been compiled by the authors.
In the course of conducting the survey, the respondents were asked to assess the efficiency level of using the information and communication tools of various types (Figure 4), namely.

![Figure 4. The efficiency level of using the information and communication tools of various types during distance learning of choir and orchestra conductors, %.
Source: it has been compiled by the authors](image)

As it can be observed from Figure 4, Google-meet resources and specialized platforms for conductors are the most effective during remote training of choir and orchestra conductors, according to experts' viewpoint in this profile.

Therefore, as modern tendencies in the scientific and educational art sphere testify, currently, in the context of globalization processes and innovative technological changes in all spheres of the society, the use of various information, intellectual and innovative educational technologies is gaining great importance in the development of education. The educational process is implemented through communication between people. Consequently, nowadays, the use of various informational, intellectual educational tools of communication is of particular significance for the development of education (Poulios & Kamperou, 2022).

The information and communication educational technologies are learning, scientific research and management technologies based on the application of computer and other information technologies, as well as special software, information and methodological support (Tian, 2022).

The information technologies can also be focused on using the special technical information tools, primarily such as: electronic textbooks, multimedia systems; expert
systems; automatic design systems, specialized databases; electronic library catalogues and global, national (regional, local) networks, etc.

The professional activity of an orchestra conductor lies in solving a number of organizational and musical-creative tasks related to conducting rehearsals and concerts (Prichard, 2017).

Considering that the activity of the head of a musical group is naturally diverse, it includes not only work with an orchestra or ensemble, but also self-cultivation, independent work on a musical composition; the quality of this type of activity depends on the level of professional training of the conductor, the presence of certain abilities and personal qualities.

The transition to innovative means of acquiring higher education is being actively implemented in pedagogical educational institutions of the world. It becomes mandatory not only to use new scientific knowledge in the educational process, but also to include creative searches in educational activities, to develop new organizational and methodological innovative technologies, various activities contributing to the development, self-fulfilment and bringing out the best in students (Wang, 2022).

Currently, scientists pay much attention to improving the educational process in terms of the subjects of the conducting cycle. Recognizing the complex, multicomponent nature of the activity of a choir conductor, as well as its connection with the nature of the acquired knowledge and skills, scientists assign a leading place in the process of conducting choral education to the independence of learning.

For instance, M. Qin points out the necessity to solve the main professional tasks based on the transfer of accumulated general and professional experience, including the application of an activity approach to conducting special choir-conductor training for students and defines choir-conductor training as a system of interrelated components, which, on the one hand, fulfils the social task of training competent specialists of a broad profile, and on the other – meets the needs of students in their personal and professional development (Qin, 2020).

Q. Liu, L. Cheng, A. L. Jia and C. Liu talk about strengthening the connection of theoretical fundamentals with practical skills in the process of acquiring knowledge on conducting activities, in which the role of reproductive training in conducting is minimized (Liu, Cheng, Jia & Liu, 2021).

Taking into consideration the fact that the main goals of the conductor’s choral training of the future teacher – musician are the setting of the conductor’s apparatus, the selection of conducting techniques for the expressive performance of the work, as well as the maximum development of the student’s professional erudition, preparation for conducting practice, it becomes clear that the priority in the selection of teaching aids is given to the conscious improvement of the student’s professional skills through mastering a range of
conducting gestures, as well as a solid theoretical base grounded on the principles of selection and construction of educational material and the latest information and communication tools.

The purpose of updating the system of organizing the educational process in art schools lies in creating conditions and situations that purposefully influence the independent activity of education seekers, positive motivation and the formation of a creative space for acquisition of knowledge, skills and abilities. The free choice of the individual learning trajectory of each student contributes to the active development of his creative abilities, the ability to make creative decisions and reproduce fundamentally new creative ideas, while overcoming the boundaries of art courses, which have previously clearly defined the range of educational topics and their distribution by classes and semesters (Tao, Fu, Wang, Zhang & Qu, 2019).

A teacher of a modern art school is not only a carrier of knowledge, but also a specialist specializing in using the innovative educational technologies. He determines the individual creative style of students’ activity and carries out the process of interaction with students and their parents. At all stages of the formation and upbringing of a child, the education system should take into account all the conditions for the formation of educational motivation and actively use a variety of techniques and methods to promote art education.

The effective use of the latest information and communication technologies contributes to the overall positive attitude of the child to learning art, readiness to perform all educational tasks, the formation of individual skills and independence of students (Tao, Fu, Wang, Zhang & Qu, 2019).

S. Prichard believes that the main objectives of choir and conductor training should be closely related to educational and developmental functions, as well as practical testing of the quality of the acquired knowledge. The definition of the content of each specific topic, section and lesson should be carried out taking into account the integrity of education in accordance with the modern requirements of pedagogical science, age characteristics, which make it possible to bring the educational material and educational repertoire closer to the features of development and abilities of students (Prichard, 2017).

Strengthening and improving the practical orientation in the training of a choir conductor enables the graduate to be mobile in a new professional and life situation, to act efficiently, confidently and effectively, and to rely on relevant special knowledge, creative skills and acquired practical experience in using the information technologies (Liu, Cheng, Jia & Liu, 2021).

The requirement for the development and use of innovative means of training choir and orchestra conductors is determined by the specifics of the reform and development of modern music and pedagogical education, the need to take into account the nature of this
development and, accordingly, directions of research in this field. Identification of the most important aspects of development, focusing on the problems of global and specific phenomena of art education, the introduction of innovative approaches is the main goal of developing the theory and practice of art education at the present stage.

5. Conclusions

Under conditions of the globalization of musical culture in the modern world, the strengthening of the tendency to preserve national cultures, the poly-functional basis of the creative activity of choral groups and their leaders is of particular importance. A modern professional choral conductor should possess a high professional level, closely related to professional culture, the readiness to mobilize all his musical and artistic abilities in order to fulfil the functional tasks of the cultural present time.

The conducted research illustrates the advantages of distance learning of choir and orchestra conductors with application of the information and communication technologies. In addition, the survey has made it possible to establish that effective distance learning for this type of specialist requires previously acquired knowledge of the main parameters of the conductors ‘process as an important prerequisite for the use of information and communication resources in training.

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