

Peculiarities of the Music Teacher's Work under Distance Learning Conditions

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Abstract

Musicians' training is based on two basic principles: theoretical and practical. The acquisition of theoretical knowledge can be carried out both in full-time and distance formats according to a certain mechanism, but several problems arise with the process of formation of skills of music-making in a distance format.

Since there is no alternative to distance learning at this stage, there is a need to determine the forms and methods of work that will not only maintain the quality of the educational process but also ensure the quality of students' music skills formation when conducting practical lessons in a distance format.

The music teacher faces the task to determine the most effective educational platform that will have minimal audio and video delay, as well as organizing work in a remote format so that the quality of education remains unchanged.

The analysis of educational platforms allowed us to determine that the allowable sound delay, defined by the International Telecommunication Union, significantly affects the process of

formation of practical skills of music-making and does not allow for classes in choral singing or the preparation of the ensemble, but it does not float on individual classes.

This research showed that the attitude of music students to distance learning is not unequivocal, which is associated with the difficulties of forming practical skills of music-making, but to achieve a positive result in the formation of practical skills is possible, it just requires more responsibility from the teacher and more diligence on the part of the student.

Keywords: music, music art, distance learning, practical classes.

Problem Statement.

The COVID-19 pandemic and related quarantine measures have forced educational institutions to switch to distance learning. It is unprecedented that quarantined distance education is the only possible form of the educational process and that the only possible alternative to distance education is to suspend it. Since, at present, it is impossible to foresee the duration of the pandemic and, consequently, the timing of the return to the daytime form of education, the vast majority of educational institutions, including art schools, prefer distance education.

It is a legitimate fact that in the educational activities of education applicants have problems, in particular, during distance learning, and a lot of research is devoted to solving these problems. As for teachers, to a greater extent, they have to master the technologies of distance learning on their own, so the problem of determining the methods of distance learning that will be most effective acquires relevance.

In the aspect of teaching music courses remotely, the teacher faces two problems:

- choosing an educational platform, the possibilities of which will allow implementing not only the theoretical basics of musical art but can be used to form practical skills of singing or playing a musical instrument;

- determination of techniques and methods contributing to the formation of music-making practical skills during the distance learning form.

Literature review.

Distance learning is a problem, the relevance of which is undeniable. The works of Delling R., Thompson M., Zov I., Culp E., Roberts R., and others are devoted to its research. Scientific publications on distance education in music are few and mostly devoted to courses in music theory. Among the domestic authors, we should distinguish the publications of Afonina A., Havrilova L., and Vasylieva L., describing distance learning courses for students of higher education institutions. Thus, Afonina A. describes distance learning courses in the following disciplines: music theory, organization of concerts and tours, contemporary Ukrainian music, methods of teaching musical and theoretical disciplines [Afonina, 2012], Havrilova L. describes the distance learning course "History of Ukrainian musical art" in detail [Havrilova, 2017], Vasylieva L. describes teaching students the elements of distance learning in the context of the discipline "Analysis of musical forms" [Vasylieva, 2017]. Properties and communication capabilities of the Internet, analysis of web pages, and prospects for the use of multimedia learning technologies in music teaching programs are analyzed in the papers by Dutchak V. [Dutchak, 2009] and Voloshchuk Y. [Voloshchuk, 2004]. The papers by Haidenko I. [Haidenko, 2002] and Krasilnikov I. [Krasilnikov, 2004],

2007] are devoted to the creation of computer training programs for teaching different subjects in music theory. The problems of technical, mental, and legal nature in teaching music courses remotely are considered separately [11].

In addition, there are many sites on the Internet with the names "online piano lessons" or "music lessons via Skype," which encourage those who want to get a lesson on a musical instrument or a singing lesson online for money. However, today it is almost impossible to judge the effectiveness of such training. Notably, there are notes in the English-language segment of the Internet about "how best to take piano lessons, online or in-person?" (e.g., [8]), which primarily address the comfort of those willing to learn, but not the learning performance.

The article aims to get familiar with the peculiarities of the music art teachers' work in the formation of singing and music practical skills in the implementation of the educational process in a distance format.

Research methods. Empirical methods: a questionnaire survey of education applicants, comparison of educational platforms possibilities and determination of optimal ones for teaching musical art course, experimental.

Presentation of the main material.

The training of future musicians, regardless of the level they master, is based on a basic set of disciplines. Some of which are purely theoretical in nature, while others are aimed at the formation of practical skills of playing a musical instrument or the formation of singing skills. Music teaching is also divided into two groups - individual or collective, depending on the number of musicians involved in the educational process. In general, the specifics of teaching music courses are defined by the Ministry of Education and Science of Ukraine and are reflected in the model curricula and syllabi.

Transformation of the educational process has set a task for the teachers: to master the technologies of distance learning and actively use them in their pedagogical activity when introducing this technology in the educational process. At the same time, the teacher should also provide the use of new information technologies in educational activities, focusing the attention of applicants for education on the benefits of these technologies and their availability.

Distance education is a form of education using computer and telecommunication technologies, providing interactive interaction between a teacher and students at different stages of training and independent work with the materials of an information network [4, p. 320].

Distance learning means receiving educational services remotely, without visiting an educational institution, using new information and communication technologies, is a universal, synthetic, integrated, and humanistic form of learning, which creates conditions for students and is adapted to the basic level of knowledge and control tasks of students [2, p. 62].

While conducting the research, based on the literature analysis, there were identified the advantages and disadvantages of distance learning. These aspects, in the future, can be used to

overcome existing problems in the formation of practical music skills or vocal teaching in a distance format (Table 1)

Table 1

SWOT-analysis of distance learning features on the example of vocal teaching

<p>Benefits</p> <ul style="list-style-type: none"> - accessibility of the educational process for persons with disabilities; - the possibility of obtaining knowledge in conditions comfortable for the applicant of education; - accessibility of conferences, seminars, and webinars through video communication without the need to visit the venue of the conference or seminar; - formation of a high level of self-organization. 	<p>Disadvantages</p> <ul style="list-style-type: none"> - insufficient control over the level of learning material; - the imperfection of the broadcasting of the musical accompaniment by technical means; - the presence of the applicant's identification problem during the delivery of the thematic material; - the low level of self-organization.
<p>Opportunities</p> <ul style="list-style-type: none"> - use of a digital toolkit variety during the educational process; - reducing the cost on control of theoretical material; - effective combination of classical and distance learning elements 	<p>Threats</p> <ul style="list-style-type: none"> - risk of manifestation and consolidation of "laryngeal skills," knots on connections, and non-latching; - inaccessibility of the Internet in remote areas; - technical delays and failures.

SWOT-analysis allows you to analyze all the strengths and weaknesses of distance learning, in particular, vocal education, to realize the opportunities and threats.

At the same time, it should be understood that the teacher and the student remain active participants in the distance learning process, where various digital tools can be used, in particular:

The Zoom platform allows the creation of video conferencing with education applicants. Provided the technical support is of high quality, practical vocal or music lessons can be conducted at a sufficiently high level. When using the free version, the duration of the session is defined as 45 minutes, and the target audience can number up to 100 people. If necessary, video meetings can be individualized.

Along with Zoom, the Google Meet application has gained significant practical use. This platform also allows for video meetings, which can involve up to 150 people at a time. The advantage of this platform, compared to Zoom, is that the started video meeting is not limited in time, so the teacher does not need to create multiple links to one session or re-connect to continue the meeting. The teacher can create one link for all and will keep it relevant constantly, just changing the target audience.

The Google Form can be used by the teacher while administering a quiz using an automatic grading mechanism for papers. In the formation of music and vocal skills, this form is appropriate in the use of theoretical foundations, the assessment of which will be carried out automatically demonstrates the impartiality of the teacher.

While processing theoretical material, can be used quite different tools, among which should be highlighted Classtime, LearningApps, Moodle, my test, and others.

For the quality implementation of the educational process in a distance format, feedback should be established. Feedback is possible due to the use of a standard service - e-mail, which allows you to send information in the format of ordinary emails. Along with text messages, video files, audio files, animation elements, and photo materials can be sent by e-mail. Due to the accessibility of this format, it is convenient to maintain feedback, but its key disadvantage lies in the fact that it is not possible to send a significant amount of information.

According to the level of mobile devices prevalence and availability of mobile Internet, it is more convenient to form and support feedback using social networks and messengers designed for this purpose. Feedback is formed in several basic directions:

- learning activities, presentation of new learning material;
- provision of tutorials;
- carrying out collection work or error correction work;
- conducting practical classes online.

The assessment of the applicants' learning performance can be done in a variety of formats, but when mastering a music arts course and developing practical musicianship and vocal skills, it is most appropriate for the teacher to create and fill each applicant's portfolio with the results of his or her work. The portfolio is a system that involves the accumulation of the results of the learning activities of a particular student or pupil.

A music arts teacher, in comparison with other teachers, has several characteristic features in his or her work. The organization of training sessions requires a teacher to carefully prepare and master the new technical basis to make the educational process as interesting, rich, meaningful, and effective as possible. When it comes to theoretical basics, teaching the course can be carried out in synchronous or asynchronous mode using the above-mentioned educational platforms and applications. When it comes to practical lessons, the teacher faces the problem of not only choosing an educational resource but also the lesson form.

According to the current educational programs, the formation of music and vocal practical skills is carried out in two basic formats: individually or in groups. Individual classes are mainly aimed at the formation of individual skills of the student, such as solo singing and voice production (for singers), playing an appropriate musical instrument (for musicians-instrumentalists), conducting (in the director-choir and director-symphony departments). It should be noted that in certain educational institutions attempts to replace individual courses with group courses lead to a reduction in the actual time of teaching courses but do not change its form. The classes are still conducted in a one-to-one format (person-to-person). Quite often, classes are directly individual - teacher-student. But while organizing a group form of work, the teacher also works with the student one-on-one, while others act as spectators, working to detect errors, identify them and take measures that will allow observers to avoid such errors in the future.

Another important difference between individual music lessons is that the teacher must pay attention not only to the result - the sound of a piece of music performed by one student but also to the control of his activities. It is necessary to control the work of the whole musculoskeletal system during the music because of the wrong position of the hands while playing a musical instrument, or improper breathing, improper functioning of the vocal apparatus, etc., or even loss of ability to work in the future, if the wrong techniques are

systematically used, even become the cause of professional unsuitability. The formation of the correct technique of playing a musical instrument involves:

- the need for constant audible and visual control of the teacher to the student;
- the mandatory possibility, if necessary, timely correction of inaccuracies or gross errors.

Such corrections, depending on the particular situation, may require personal demonstration by the teacher or even some tactile contact between the teacher and the student if certain tactile or physiological sensations are important.

It is necessary to complete the latter observation. It is well known that learning interactions involve both verbal and nonverbal communication. Nonverbal communication includes gestures, facial expressions, tactile contact, and keeping a certain distance and makes up 55% of a person's daily communication activity.

Collective music-making has a certain specificity in terms of organizing teacher-student contact. Two kinds of interaction must be established simultaneously: student-teacher to student-pupil. The teacher, as in the case of individual musical creation, must fully control the process of performance, but the student must not only follow the instructions of the teacher but also coordinate the process with the actions of other students. The coordination process must take place in real-time. The student must hear what others are playing (singing) and simultaneously play (singing) in the same rhythm and with the same character as the others.

In the case of distance education, all participants of the educational process are distant from each other and can observe the actions of others only through special means of communication. These tools include a phone (smartphone) or computer (laptop) with the appropriate software installed (including Skype, Viber, Facebook Messenger, Zoom, etc.). The modern tools of communication allow you to transmit both audio and visual information, but none of them allow tactile contact. In addition, the transmission of both audio and visual information also has its characteristics.

Thus, depending on the quality of the microphone of the device used by the student, the quality of the device speakers used by the teacher, the latter receives audio information with a greater or lesser loss of quality. If the loss of sound quality is significant, it may prevent the teacher from fully evaluating how well the student is performing the assignment. It is especially true for academic singing, where features of the timbre of the voice at any moment can indicate the accuracy or improper activation of elements of the vocal apparatus.

The quality of the image transmitted from a computer or phone can also vary, mainly due to the lens' quality of the device that receives the image. In addition, during music, the student is required to fix the device in a certain position so that their hands are free to play the musical instrument (or direction), in which case the teacher can observe the student from a single angle. It also makes it more difficult for the teacher to monitor the proper functioning of the musculoskeletal system.

However, the biggest problem is the delay in the transmission of information over the Internet. As we know, through digital communication, audio or video transmission takes place in several stages: video recording and encoding, transmission from the encoder to the media server, transmission processing by the media server, streaming from media server to client media server, decoding and displaying on the user device. International Telecommunications Union (ITU) recommendations in 2003 suggested that one-way transmission delay should not exceed 0.4 seconds. In more recent publications, quality communication is characterized by a

delay of up to 0.2 seconds. All educational resources meet this criterion. For example, Skype, Viber, Zoom, Google Meet have a delay of 0.2 seconds, and Facebook Messenger has a delay of 0.3 seconds. The question arises of how critical the 0.2 seconds delay is. How will the delay affect individual and collective performance?

As you know, musical durations are usually expressed in relative units (quarter, eighth), but if necessary, they can be expressed in absolute values by knowing the tempo at which a piece of music is played. Specifically, when playing a piece in Allegro rhythm with a metronome mark of 120 beats per minute, we obtain that the duration of a quarter will be 0.5 seconds, eighth will be 0.25 seconds, and so on. At higher speeds, such as 150 beats per minute (Vivace tempo), and eighth will be exactly 0.2 seconds, the lag time we encountered during our experiments with the telephone.

This means that when playing fast songs, musicians will hear each other with a delay of about an eighth. Also, in the reverse direction, the signal transmission time will get a delay of 0.2 seconds. Therefore, if the musicians are performing a duet song and enter alternately, and the second musician enters accurately, focusing on the first musician, the first musician will think that the second musician will be 0.4 seconds behind. It will cause him to pause for a while and wait for 0.4 seconds to regain synchronicity. This behavior of the first musician will be unexpected to the second musician and will eventually cause him to stop and wait 0.4 seconds to regain synchrony.

The mentioned feature simply makes it impossible to perform ensemble music in a distance format. A similar situation is observed in the lessons with the accompanist, necessary for quality preparation of vocalists and musicians - instrumentalists, mastering the art of playing on string and wind instruments.

However, let us note that the form of remote communication allows you to prepare a recording of a musical work as a whole at a high level, even if the work is done at a fast pace. The technology of obtaining such recordings is akin to the technology in the studio: musicians record their parts one by one, using a sample metronome or phonogram as a countdown, and then the sound is played back (for educational purposes, it can be played back by either the teacher or one of the students (the software)). This way of working can be useful for practicing the learning skills of future musicians but requires serious training on the part of those involved in the process, so it can be used only while working with an appropriate contingent of students.

Using the distance form of education in the formation of practical music and vocal skills, the teacher must not just be responsible for the process but must select and apply such techniques and methods that will allow the formation of practical music skills only at the highest level, with all the requirements for music technique on an appropriate musical instrument. The work is organized and implemented according to a certain mechanism:

- the preliminary stage - the choice of an educational platform for conducting a remote online lesson, taking into account the possibility of delayed sound and image;
- mastering the methods of work available on this educational platform: viewing presentations and video fragments, the ability to listen to audio files, work with the board;
- assessment of the lesson feasibility in individual or group form;

- conducting a class in real-time using a video link;
- an analysis of the lesson, identifying strengths and weaknesses and identifying areas for improvement;
- assessment of the results of the student's learning activities.

After the first distance lessons, it becomes clear to music and vocal teachers that conducting group practice sessions has no practical value, and is inappropriate, so teachers prefer distance lessons of an individual nature. By working to improve the techniques and techniques of performance, the teacher not only guides the student's work but also provides timely advice. When organizing a distant practical lesson aimed at forming and improving the skills of musicianship, it is necessary:

- to choose an educational platform characterized by minimal image and sound delay;
- to check the provision of the trainee with a video camera, preferably of high quality, to transmit a clear image;
- during the lesson, the student should use a fixed camera so that his/her hands are free and he/she could freely play the musical composition on the instrument;
- while conducting the lesson remotely, the student should be prepared so that their camera or mobile device can be moved to change the angle of view of the process of playing the musical instrument;
- to prepare the student for the fact that the same song may be played multiple times to analyze the delivery of sound;
- the teacher should not just listen but observe the student's posture and properly hold the musical instrument in what is defined as a "professional" position when necessary;
- throughout the lesson should be an analysis of the student's posture, clarity of sound, identification, and correction of errors;
- according to the results of the work, the teacher must note more positive moments in the student's work than negative ones, for his encouragement and support.

Since the alternative to distance learning, at this stage, is its absence at all, an experimental study was conducted based on _____, which determined the attitude of students to the process of forming practical music skills in a distance format. Sixteen co-educational students were involved in the experimental study. A questionnaire was administered to collect data, which involved students receiving appropriate music education skills during one-on-one sessions. The questionnaire contained 5 questions with three possible choices: like/dislike, like, but not completely. Based on the responses received, it was determined that (Fig. 1) 3 education applicants believe distance education is completely ineffective. Also, 5 other education seekers say distance education is ineffective. 5 respondents (31.25%) believe that distance education can be effective but provided it is combined with a traditional form of learning activities. Only three respondents were satisfied with distance learning (18.75% of the total number of respondents).

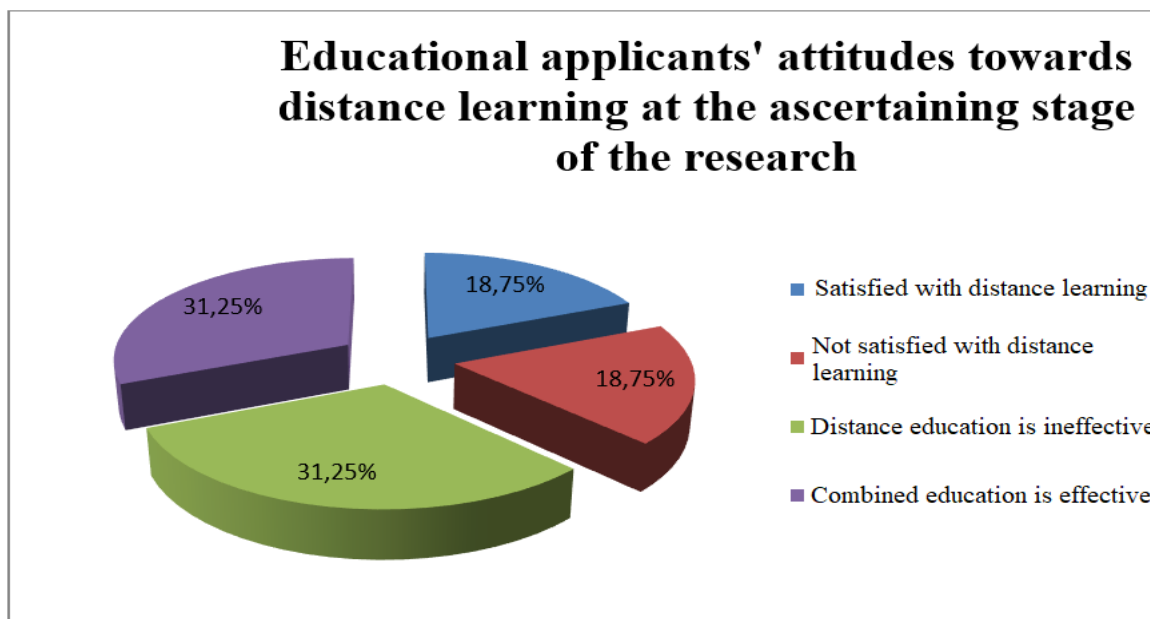


Figure 1. Educational applicants' attitudes towards distance learning at the ascertaining stage of the research

After the f

orced switch to distance learning, individual practical lessons of students were conducted online using the recommendations and methods listed above. Obligatory conditions in conducting practical lessons were:

- compliance with certain time limits;
- obligatory conducting of all classes with the use of a video camera;
- constant feedback with the student within the specified time frame for the necessary consultations.

After some time, when practical lessons in distant format were carried out systematically, the students were asked to repeat the questionnaire. The results were as follows: 9 students were satisfied with the quality of distance learning. 5 students did not change their opinion regarding the effectiveness of blended learning, while 3 students remained dissatisfied with distance learning. There were no education applicants who considered distance learning to be ineffective (Fig. 2).

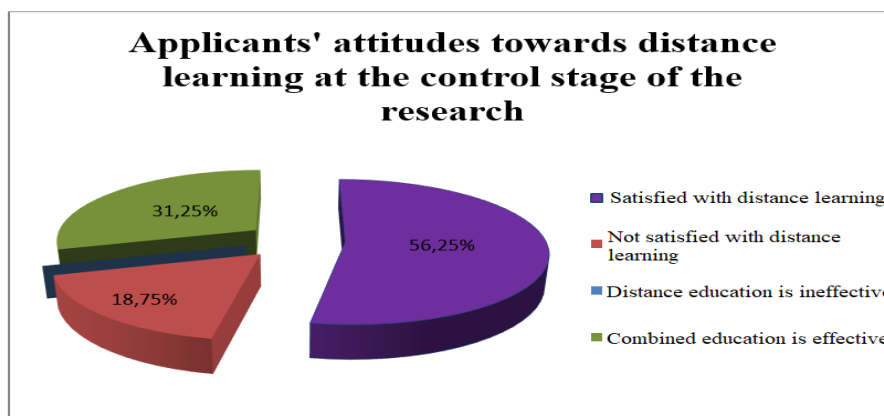


Figure 2. Applicants' attitudes towards distance learning at the control stage of the research

Based on the results, we can talk about the positive dynamics.

Discussion

Based on the results of the experimental study, we see that the attitude of students to the preparation of musical art for distance learning is changing for the better. The positive dynamics are associated with the fact that during the organization and conduct of practical lessons in a distance format. Teachers adhere to the listed principles and mechanisms of interaction with the education applicants.

As we can see, the satisfaction rate with distance learning is increasing from an initial 31.25% to 56.2%. The students who changed their minds note that even during distance learning the level of responsibility and demandingness of the teacher is not reduced. On the contrary, seeking to catch small details and specific deviations, the teacher is more focused on observing the technique of playing the musical instrument. The teacher becomes more careful about the sound and constantly stays in touch, providing advice.

The rate of students who consider the mixed form of teaching effective does not change - 31.25%. Students argue their choice by the fact that the lack of tactile contact with the teacher and direct interaction, rather than communication through the monitor, has a more positive effect on the process of formation and improvement of the skills of music-making. They also note that while working in the classroom, it takes a little more time to develop musical abilities because they don't have to move the video camera.

The rate of students who are not satisfied with distance learning also remained unchanged at 18.25%. Respondents note that distance learning has several disadvantages, which are mainly technical, and are associated with delayed sound or video. They are not satisfied with the lack of direct interaction between the teacher and the student in the classroom, the fact that the teacher has no opportunity to approach and change the posture, but only guides the student verbally or shows himself how to hold a proper posture.

The rate of students who think distance learning is ineffective drops by 18.25%. It happens since the students themselves note the possibility of forming practical music skills in a distance format, but such training requires more responsibility and more effort.

When selecting educational platforms that can be used to teach practical music lessons, the analysis showed that distance learning can be effective only if the practical lessons are individualized. Due to technical problems, due to the sound delay between subscribers, it is simply not possible to conduct classes for choral singing or ensembles because the sound delay, for ensemble, as well as for duet or chorus, is very noticeable.

Conclusions

Distance learning is a form of education, which is defined by the possibility of interaction between the teacher and the applicant at a distance through the use of digital technologies. Given that distance learning is the only possible alternative to no learning, there is a need to identify those techniques and methods that will allow education applicants to acquire practical skills and competencies in a distance format.

Formation of music and vocal skills in a distance format can take place effectively, but to do so, the teacher must follow a certain algorithm of actions:

- to conduct thorough preparation with identification of the educational resource that will be used to conduct the hands-on session in a distance format;

- coordination of the moments related to the technical support of both the applicant and the teacher;

- during the practical lesson, the teacher should concentrate as much as possible on the technique of the student's music-making, guide a student by changing the camera angle and listening to the controversial elements of the composition being played several times;

- at the end of each lesson, to analyze the work, noting more advantages for the support and student's desire to develop and improve himself/herself;

- to carry out corrective work based on the analysis;

- be sure to follow the specified time frame;

- to conduct all practical lessons in the online mode.

Conducting practical lessons aimed at developing and improving the skills of music or singing is possible only if they are individualized. Conducting practical lessons for choir or ensemble is simply impossible because of the sound delay.

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