Digital Technologies in the Development of Ensemble Musical Culture of String Ensemble Members

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ABSTRACT

The article proves that digital technologies in application with traditional methods of music education can be an effective means of developing an ensemble culture. Two different methods of working with string ensembles are presented, one of which is in the children's philharmonic in the city of Yekaterinburg, the other is in a special music school in the city of Changchun (China). Based on the diagnostic study conducted in these institutions, gaps were identified in the formation of ensemble culture among their participants. To eliminate these gaps, methods based on modern information technologies have been identified: "dialogue of performers", implemented with the help of Skype, "artistic tone" using the program "Real piano", "rhythmic pulsation", implemented using the program "Metronome", "auditory observations ", which was introduced into the process on the ensemble work using the Internet, smart phones, cell phones (video-clavier program)," contrast "," artistic context ", introduced via the Internet, cell phones (mobile phones applications).

Keywords: *information technology, ensemble performance, string ensemble, methods of ensemble culture formation, computer programs*

1. INTRODUCTION

Information technologies today are actively involved in various educational processes, including those that are aimed at developing the musical culture of students in the process of various forms of musical performance. The forms of this performance can be different: solo singing, choral ensemble, solo and instrumental quartets, choir, etc. One of the active and sought-after forms of playing music are ensembles, which are a collective type of musical activity. The popularity of ensemble performance, the desire of students to engage in this type of musical activity is due to the fact that it includes not one but many participants who, in joint work, create a certain artistic product. Since the creation of such a product takes place in the process of not just one soloist, but many performers, one of the tasks of the ensemble is to establish mutual understanding and co-creation in the performance, which is defined by researchers as artistic communication. The undoubted advantage of ensemble performance is that several pianists, violinists, vocalists, etc. can be included in the ensemble for the development of the musical culture of performers as a whole. Depending on the availability of various instruments, ensembles can be of different types - piano, stringed, accordion, vocal, in the system of additional school music education - an ensemble of drummers, spoon-makers, vocal-pop, etc. Today among the many tools that form the ensemble skills, stand out those that researchers [1,4] attribute to information technology. Unfortunately, the possibilities of these technologies are revealed in works examining the special forms of ensembles - vocal-choral or pop-instrumental. The issue of methods using information technology in the process of working with instrumental ensembles (folk and academic) in the literature on musical education is not considered enough.

In the sources devoted to musical ensemble performance, the possibilities of the formation of such qualities as mutual assistance and support by ensembles are considered. So, some researchers are exploring the possibilities of "coaching," when a stronger ensemble member helps a weak or beginner to progress in an ensemble [5, 8]. Ensemble interaction is also being studied in terms of creating mutual understanding between participants of different ages: children and adults [8]. The authors investigate the emergence of artistic interaction in the process of performing musical works by an ensemble [7]. To establish a choral ensemble, the authors include a certain type of choral repertoire [3].

A generalization of the ideas of a number of studies suggests that in the ensemble its participants can successfully develop artistic communication skills, which allows the ensemble members to "go out" to the conceptual ideas expressed by the language of music by one or another composer [2]. At the beginning of this study, we suggested that certain methods based on information technology can be used to form these skills. The latter, in accordance of their relevance and demand among young people, can become ways of forming not only artistic communication, but also other necessary

components of ensemble culture. To verify this assumption, the traditional methods of pedagogy of music education were highlighted, the implementation of which took place in the new conditions for the introduction of information technology. These methods have been tested in work on ensemble performance in two string ensembles and have shown their effectiveness in the process of diagnosing.

2. RESEARCH METHODS

The idea that high-quality ensemble performance is developed on the basis of the formation of interaction between musicians in order to achieve a certain artistic result, reflecting not only the technical perfection of the performers, but also their ability to interact with each other in order to realize and recreate artistic image which the composer implied, was taken as the methodological basis of the study. To implement this methodological message, the following methods were used: analysis and generalization of literature on the problem of ensemble performance and the formation of ensemble playing skills, experimental work with participants of two string ensembles, one of which was an ensemble of young children, the other - elder children. This work included a diagnostic and formative phase.

3. RESEARCH RESULTS

3.1. Before proceeding to the definition of methods of pedagogy of music education with the further adaptation of their content to new conditions - information technology, it was necessary to identify those unresolved problems in the formation of ensemble culture that existed in various ensemble groups. For the present study, two string ensembles of two different educational institutions were identified. The difference between these ensembles was in the age composition of the participants — one ensemble, in which junior schoolchildren took part, and the other ensemble was composed of elder schoolchildren. An important distinguishing feature of the two named ensembles was that the members of each of them were brought up on the domestic musical culture of different countries. In particular, the ensemble of elementary schoolchildren was brought on Russian culture, the ensemble of Chinese schoolchildren - on Chinese musical culture. It was assumed that in each ensemble, in terms of interaction to create an artistic image of a performed musical work, there were its own unformed components of ensemble culture. In accordance with this assumption, for each ensemble, the development of certain methods based on information technology was required. Therefore, to identify such methods, a diagnostic study was conducted, in which the ensembles of violinists of the Sverdlovsk State Children's Philharmonic took part, the participants in the ensemble were, as indicated, primary school children and the string ensemble of high school students at Beihu School at Changchun Secondary School

No. 11, Changchun (Chinese People's Republic). If the first string ensemble consisted of performers playing only the violin, then the second string ensemble differed from the first by a variety of string instruments. The Beihu Chinese school ensemble consisted of participants playing the cello, double bass, violin and Chinese folk musical instrument - pipa, which, unlike all other instruments - stringed bowed instruments, belongs to stringed folk instruments.

At the beginning of the study, the development of the ensemble culture of the participants in these ensembles was diagnosed. It included such methods as a survey of students, during which the following were revealed: the musical experience of the participants, the ability to join the dialogue author - member of the ensemble; a creative task in the process of which the ability of each participant to interact in the ensemble was determined: rhythmic, dynamic, tempo with other participants in the process of performing a musical work.

The diagnosis made it possible to formulate the following conclusions. The highest level of development of artistic interaction in creating a certain image in the performance was demonstrated by the participants of the violin ensemble. Children possessed a broad musical horizons, had knowledge about composers, whose works were performed, in the process of their own music making, the ensemble members interacted with each other during the embodiment of the composer's intent in the process of performance. However, while performing a piece of music, some young musicians tried to stand out from the general ensemble, posing as a soloist, which led to the interruption of dialogue between the performers. In this regard, it was necessary to find such means that would form an ensemble musical culture among younger schoolchildren, which is expressed, inter alia, in the level of formation of the skill of joint performance.

The members of the string ensemble from Changchun showed a high level of fulfillment of the creative task. They clearly interacted with each other, successfully found ways of collective expression of the climax, the clear end of phrases, the exact execution of caesuras in line with the content that was presented by the composer. Especially high-quality was their technical embodiment of musical material. However, their musical experience was not so extensive, which is explained, first of all, by the fact that the level of knowledge about music was not, according to the ensembles, necessary for high-quality performance of music. In this regard, the "exit" to the implementation of the plan by the composer was not always carried out successfully. In this regard, these ensembles needed other methods based on information technologies that would eliminate the existing shortcomings in the ensemble culture revealed in the diagnostic process in the two named groups.

3.2. Based on the results of initial diagnostics, several sets of methods were developed and introduced into the process of working with children's string ensembles. In the program for the development of ensemble musical culture in the ensemble of violinists of primary schoolchildren, the following were used: "dialogue of

performers", implemented using Skype, "artistic tone" using the program "Real piano", "rhythmic pulsation", implemented using the "Metronome" program.

The first method was introduced into the program preparation process by each ensemble in the homework system. Using Skype, one performer correlated his violin performance with the second, the game of which he perceived through Skype. As a result of such duets, ensembles achieved harmoniously sounding, unity of metro rhythm, nuance, pace. Thus, ensembles could correct errors in fragments that are technically difficult to perform, as well as in the holistic performance of various musical works.

The "artistic tone" method was used in the rehearsal work of the ensemble when one of its participants or accompanist (note that an adult teacher and accompanist almost always participated in the violin ensemble of younger students) played one or two phrases of a musical piece on an electronic piano. The electronic piano was imitated by the Real piano program, which was downloaded by each ensemble to a cell phone. The purpose of using this method is the ability to perceive an artistic task, which was formulated neither by the violin, the sound of which and the playing techniques on it were familiar to the ensembles, but the piano, which had a different timbre color, and a more stable temperament. By only one musical phrase did the ensembles have to understand the metro-rhythmic basis, pace, dynamics, terms of phrasing, caesura.

The next method, "rhythmic pulsation," was used both in the process of rehearsing for the concert and in the process of the ensembles' homework. This method was implemented using the Metronome program. It is known that coherence of ensemble performance in many respects depends on the unity of ensemble performance of the metro rhythm and pace. In achieving this unity, it is important for each ensemble musician to have a sense of continuous pulsation, which should be felt not only during the direct performance of music, but even in pauses. Musician teachers, even in the "digital era", used metronomes for these purposes, adjusting them to the tempo defined in the musical text of the musical work. Currently, such metronomes can be successfully replaced by a program that, like the "Real piano", can be downloaded by each member of the ensemble to their cell phone. Playing under the electronic metronome, like a real metronome, forms the unity of ensemble performance of any musical work.

The program for the development of musical culture among ensembles in a string ensemble from the city of Changchun included methods to expand their musical horizons. It should be noted that the process, as the Chinese participants in the ensemble "admiring" music is called, which in the understanding of Russian teachers and musicians is the perception of music, is not often included in the content of the musical education of Chinese musicians. The diagnostic results of these ensembles confirmed this position. In this regard, in the classes of music literature the ensembles included the following methods used with the inclusion of information

technology: "auditory observation", which was introduced into the work on the ensemble work via the Internet (video-clavier), smartphones, cell phones, " contrast "[1], implemented using cell phones, the Internet, the" artistic context "[6], which was used when using cell phones (mobile applications for cell phones, for example, the application ARTEFACT- a multimedia guide and its application in English - Smartufy, available at the Pushkin State Museum of Fine Arts).

The method of auditory observation was implemented both in a system of independent and in the classroom class of ensembles. Note that due to the great enthusiasm of young people for electronic gadgets, they used such means that they were familiar with and which encouraged the ensembles to find on the Internet some information about composers, their work, as well as to listen to music. This was a method of auditory observation, allowing the ensemble participant to pay attention not only to the technical features of music performance, but also to those intonations that contributed to the composer's understanding, ideas and thoughts. Auditory observation using video-clavier made it possible not only to hear certain ensemble music, but also to observe the musical text of the work displayed on a computer or smartphone screen. The interconnection of the visual and auditory perception of music significantly enriched the ensemble's musical thesaurus. The method of auditory observation, which allows the ensemble participant to pay attention not only to the technical features of music performance, but also to intonation features, contributed to understanding the idea of the work, disclosing the feelings and thoughts of the composer.

The contrast method allowed each ensemble in their independent work to draw up a single creative project on a certain topic ("The Seasons in Music", "Good and Evil in Art", "Lotus Flower", etc.), which created a dialogue of several musical works on one and the same topic that ultimately was the dialogue of several composers. Combining the sound of fragments of different works with visual analogs - paintings or photographs, the students made up uniform presentation compositions, contrasting in emotional tone. In this case, an artistic dialogue was added to the musical dialogue, in which the authors of art paintings or photographs were included. Note that due to the great enthusiasm of young people for electronic gadgets, they used such means that they were familiar with and which encouraged the ensembles to find on the Internet some information about composers, their work, as well as to listen to music. These are smartphones, cell phones, laptops, etc. In the system of independent work, the ensemble participants used the method of creating an artistic context [6], when studying the ensemble's work, the performers selected artistic material — illustrations of paintings by famous artists, sculptural compositions taken from electronic catalogs of museum exhibitions, as well as fragments of poems.

The introduction of a certain set of methods based on information technologies into the ensemble performance process took place during the preparation of one concert program, approximately 2-3 months. After which the final

diagnosis was carried out. The results of this diagnosis, obtained in two ensembles of violinists, showed a tendency to increase creative interaction between participants during the performance of works and ensemble, rather than solo performance of musical material. In general, the solo performance process, when some participants showed a desire to stand out from the ensemble, came to naught.

The final diagnostics carried out in the string ensemble of the Chinese school showed an expansion of the musical and auditory experience of the performers, a more accurate verbal expression of the emotional tone of the

musical work, the formed ability to reflect the mood of the author, as well as the ability to produce analogs between musical and artistic works and include these analogues in their creative projects. Awareness of the idea of his own project, the ability to create a project contributed to the understanding of the pathos of a musical work and its artistic basis. The process of implementing these methods was carried out by the author of this article, teacher of musical literature at Beihu School, Ms. Jia Jifeng.

4. CONCLUSION

Despite the positive results obtained in the course of the study, analysis of these results, comparison of the implementation of diagnostic creative tasks at the initial and final stages by the ensemble members, problems and unresolved issues on the use of methods whose implementation included information technology were identified. So, for example, to work on ensemble performance both in the ensemble of younger students and in the ensemble of senior schoolchildren, when implementing the method of "thinking about music", one can explore the possibilities of such an information component as social networks. Students in the process of exchanging opinions about the performance of their ensemble, other ensembles may perceive different opinions of their peers, but the argument about the level of performing skills, the correspondence of the contents of the musical work and the performing interpretation significantly expands the knowledge of the ensemble

members about music. The discussion process will require certain knowledge about the composer, the era of writing a musical work, musical language and means of artistic expression, which in general is the baggage of participants' knowledge about music. In theory and pedagogical practice, the question of the possibility of using such a program, which is already called a social network as "Smule sing", is still open to work with ensemble members. Only instead of the traditional vocal performance, when other performers can be added to the performance of one vocalist, such a program can be adapted to instrumental performance. Other instrumentalists are added to the performer on a certain instrument, thereby making up a full-fledged musical ensemble. These problematic issues require further reflection and theoretical and practical development, which is the prospect of further research in line with the theme formulated in the article.

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