

# Music and Digital Technologies in the Course of Studying the Discipline “History of Music” by Students of Music Universities in China

Kashina N.I.<sup>1,\*</sup> Zhong Hua<sup>1,2</sup> Xia Junwei<sup>1,3</sup>

<sup>1</sup>*Ural State Pedagogical University, Yekaterinburg, Russian Federation*

<sup>2</sup>*Jilin Pedagogical University, Changchun, China*

<sup>3</sup>*Changchun Guanghua University, Changchun, China*

*\*Corresponding author. Email: koranata@mail.ru*

## ABSTRACT

The article deals with the problem of using digital technologies in professional training of students studying at music universities in China. The purpose of this article is to reveal meaningful and methodological aspects of the use of digital technologies in educational process of the discipline "History of foreign music", which is a part of the course of musical and theoretical disciplines. The authors summarized and presented pedagogical experience of using programs for playing music in educational process: audio (AIMP, PowerPoint, ProShowProducer, SonyVegas, WindowsMovieMaker, MediaPlayerClassic, WindowsMediaPlayer, iTunes) and video format (VLCMediaPlayer, MediaPlayerClassic, KMPlayer, WindowsMediaPlayer, Winamp); multimedia advertising (in creation of which a teacher and students use multimedia programs PowerPoint, soundforge, adobephotoshop); the Internet sites containing information in the field of culture and art, which students used to prepare educational researches and music and art projects. The authors conclude that the use of digital technologies by a music University teacher has a positive impact on the development of students' musical experience – on the assimilation of theoretical concepts, creative script of composers, features of language of music, musical forms, genres, etc. Students are involved in creative and simultaneously research productive activities, learn to think and acquire knowledge independently. Herewith, they develop an interest in the discipline being studied.

**Keywords:** *music and digital technologies, music education, music University students, music history, project activities, multimedia advertising*

## 1. INTRODUCTION

In conditions a dynamically developing world of constantly improving and complicating technologies, Informatization and digitalization of education is considered to be of fundamental importance. This direction of developing educational industry is recognized as a priority of national goal of of many countries, including Russia and China.

These ideas are declared in official documents related to the content of education and social development: in Russia - in the "Concept of the Federal target program for development of education for 2016-2020", the state program of the Russian Federation "Information society (2011-2020)", etc.; in China - "Project 211", the purpose of which is to build a system of innovative information-communication environment in Chinese universities, acceleration of Informatization of higher education, etc.

These documents state that Informatization of education should be aimed at choosing necessary information from the huge flow of information by participants of the

educational process and at organizing optimal work with it; digital technologies should serve not only for students to acquire knowledge, organize their research activities, but also for their creative self-expression [6, 7]).

Rapid development of digital technologies has led to their active implementation in the sphere of music education in Russia and China, significantly enriching both the sphere of musical creativity and the sphere of musical and pedagogical theory and practice (I. M. Krasilnikov, K. Yu. Plotnikov, S. p. Polozov, Zhao Yishan, etc.).

Today in Russia, at the Russian state pedagogical University named after A. I. Herzen, there has been an educational and methodological laboratory created, which develops and implements theoretical foundations of the concept of music and computer education in the training of music teachers. Digital technologies in this laboratory are considered, first, as a new tool in the field of general, additional and professional music education and music creativity, a means of training and rehabilitation of children and adults with disabilities, second, as a way to create, store and broadcast works of musical art, and third, as a means to build productive links between music theory and music practice, between participants in the

educational process, compatible and organically interacts with traditional methods of teaching music [3].

The field of digital technologies in Russian higher music education is presented by a number of studies in which pedagogical conditions of realizing the concept of musical and computer education in preparing a music teacher- revealed (A. Kameric), the content of the process of teaching students the basics of music programming is described (E. V. Kibitkin), especially much attention is paid to the use of musical computer technologies in professional training of music students with disabilities (S. A. Filatov), peculiarities of formation of professional competence of students in the field of music and computer technology are presented (A. A. Konovalov, T. A. Nezhinsky), besides scientists pay special attention to introducing students to composition and arrangement by means of is music-computer technology (A. A. Apasov), features of using Smart-education technologies in the educational process of the disciplines "Listening to music" and "Music literature" are included in the curricula of Russian institutions of additional education (Tagiltseva N. G., Konovalova S. A., Kashina N. I., Valeeva E. M., Ovsyannikova O. A., Mokrousov S. I.[9]), etc. But none of the studies considers content and methodological aspects of using digital technologies in the process of studying the discipline "History of foreign music" by students of music and music-pedagogical universities.

In China, the problem of using digital technologies in the process of music education also gets its reflection. For example, the research of Professor Zhao Yi Shan of the Beijing Conservatory, who is the Director of Association of digital teaching, actively promotes the idea of using multimedia technologies in teaching such subject of the musical-theoretical cycle as solfeggio. According to him, the use of digital technologies contributes to the development of musical hearing and memory musicians (based on the material of the five-stage sound scale, pentatonic scale) [8].

Multimedia programs for detecting levels of musical hearing development (the Guanadaway test), musical intelligence (the Wing Standardized Tests of Musical Intelligence) and other characteristics of human musical abilities (EarMaster, Auralia, etc.) have become quite popular in China. Researches of Chinese scientists (Jin Kaimu, MA Keshi, Chengnanxi, Zhangyan) consider the issue of using multimedia technologies in teaching Chinese music-students- the history of foreign music.

The authors conclude that using multimedia technologies in educational process reduces the process of turning information into knowledge by students. At the same time, the authors rely on ideas of general psychology that human way of thinking is discrete and nonlinear. Multimedia information organization gives an opportunity for multi-faceted, multi-level and non-linear information to be transferred and exchanged, helping students to master educational material effectively, which has a positive impact on the process of their professional training. However, a number of issues related to the use of digital technologies in the process of studying musical

theoretical disciplines by music students, including the discipline "History of foreign music", remain "open".

Curriculum of music universities in China, when training students of any specialty, includes the discipline "History of foreign music". It is aimed at forming students' ideas about the laws and content specifics of development of foreign musical culture, understanding it as an integral musical phenomenon, getting acquainted with composers, performers, styles, musical genres, instruments, forming a holistic and systematic approach to the historical types of artistic and musical culture; students' accumulation of artistic and musical thesaurus; education of musical and aesthetic taste.

As mentioned above, digital technologies possess a great pedagogical potential in music-students' effective gaining knowledge of this discipline. In addition, these technologies implement principles of smart education, which were formulated in one of the works of N. V. Dneprovskaya, E. A. Yanovskaya and I. V. Shevtsova [2]): the principle of organizing independent cognitive, research and project activities of students, implementing educational process in a distributed learning environment, individualization of learning.

The teacher's use of digital technologies in educational process takes into account predisposition of modern youth to visual perception of culture and more optimal work with visual sources of information. The purpose of this article is to reveal the content and methodological aspects of the use of digital technologies in the educational process of the discipline "History of foreign music", which is a part of the circle of musical and theoretical disciplines of professional training of musicians, both theorists and performers.

## 2. METHODOLOGY OF THE RESEARCH

The research is based on: concepts of musical activity with the use of music and computer technologies (I. B. Gorbunova, I. M. Krasilnikov[1, 3]); concepts of using music and computer technologies in professional education (I. B. Gorbunova[1], and others).

## 3. RESULTS AND DISCUSSION

The study was conducted on a wide sample of students from Jilin pedagogical University and Changchun Guan-Hua University, Changchun, China. The experiment involved 253 people, from which control and experimental groups were formed, as well as 2 teachers of music-theoretical disciplines (the authors of this article).

The experimental study included three stages: ascertaining, searching and control.

The purpose of the ascertaining stage of the experiment was to identify digital technologies that contribute to the effective development of content of the discipline of the musical-theoretical cycle "History of foreign music" by students. Criteria and indicators were: the level of general awareness of a student about the music being studied,

presence of interest, certain preferences and passions, students' motivation of turning to a particular music. At this stage, L. V. Shkolyar's diagnostic methods were used [5]. The results of this stage allowed us to identify the research problem and confirm its relevance.

The goal of the search stage was to introduce digital technologies into educational process of the discipline "History of foreign music".

A) In educational process, the following programs were used for students to master music material in audio format: AIMP (supports all major audio formats, has the ability to convert various audio files to any format), PowerPoint, ProShowProducer, SonyVegas, WindowsMovieMaker, MediaPlayerClassic, WindowsMediaPlayer, iTunes (can be used to play music from computers with iOS smartphones).

Music-students study synthetic stage genres (operas, ballets, cantatas, oratorios, musicals, etc. performed by world-class singers and dancers) was performed in video format using VLCMediaPlayer, MediaPlayerClassic, KMPlayer, WindowsMediaPlayer, Winamp. Music-students had an opportunity to listen to music in concert performances of many foreign orchestras, conductors and individual musician-performers, who sounded within the walls of the Bolshoi theater, the Mariinsky theater (Russia), Teatro alla Scala (Italy), Grand Opera (France), Covent Garden (Great Britain), etc.

B) In educational process of the discipline "History of foreign music", a computer (multimedia) presentation was used, which is a small video film containing graphic, text and audio-visual information, combined into a single artistic and informational product, which is based on the storyline, scenario and navigation structure. Multimedia presentation is a kind of "multimedia advertising", that is, an artistic product characterized by integrity, expressiveness, the presence of a plot and drama created by a teacher or students in the creative process using multimedia tools [4].

Combining text, graphics, animation, video and audio information in an integrated form, multimedia advertising made it possible for a teacher or student to organize educational material, transform not only the text, but also its visual design. To create such a multimedia advertisement, its creator needed not only knowledge of composer's work, knowledge of science musical sciagraphy, cultural studies, study of art, but also knowledge and skills to work with multimedia programs: PowerPoint (which makes it possible to distribute the image series in a logical sequence, overlay text, audio, animation effects, etc.), SoundForge (provides accurate extraction of the necessary music fragment for advertising, recording verbal accompaniment and then superimposing it on a music fragment), Adobe Photoshop (performs image editing) [4].

In educational process at Jilin pedagogical University and Changchun University, multimedia advertising was created not only by a teacher when presenting the work of a composer (I. S. Bach, L.V. Beethoven, F. Liszt, V.-A. Mozart, S. V. Rachmaninov, F. Chopin, P. I. Tchaikovsky, etc.), or a specific musical work

(Symphony No. 40 by V.-A. Mozart, "Seasons" by A. Vivaldi, "Children's album" by P. I. Tchaikovsky, Preludes of F. Chopin, etc.), but also by students themselves. This helped to stimulate interest of music-students in a particular piece of music or creative work of a particular composer, allowing them to become more fully and holistically acquainted with them, since the process of cognition is based on mental operations of comparison, generalization, classification and structuring, namely, these mental operations were carried out by students in creating multimedia advertising.

C) At Jilin pedagogical University and Changchun GuanHua University of China, the project method was used in the course of students' study of the discipline "History of foreign music". Various types of projects were used here.

These were educational and research projects, which are a process of solving problems based on an independent search for theoretical knowledge, forecasting results and methods of activity, for example, such projects as "European Opera: past and present", "Western European instrumental music", "encyclopedia of vocal genres of Western European music of the XVIII and XIX centuries", "From the history of European ballet", "From the history of Western European Opera", "Old Italian vocal schools, their traditions and modern performance", "Development of the Opera genre in Russia", "Symphony orchestra yesterday, today and tomorrow", etc.

In addition, music-students carried out musical-artistic projects that were a way of interacting with music in conjunction with other types of artistic creativity-literary, visual, etc. Here students developed projects "Spring in music, painting and literature of European composers", "Spring in music, painting and literature of Russian composers", "Revived treasure of Venice" (about creative work of A. Vivaldi), etc. Students of Jilin pedagogical University and Changchun Guan-Hua University used video recordings of Opera and ballet performances, symphonic and chamber concerts, reproductions of paintings conformable to music they were listening to, information about life and work of composers, musical figures, performers, etc.

In order to present educational research and music-art projects, music-students used multimedia presentations, worked with the Internet sites containing information in the field of culture and arts, as well as with recordings of musical recordings in mp3; videos of opera and ballet performances, symphonic and chamber concerts, concerts of folk music groups; reproductions of paintings in conformable to the listened musical work; information about life and creative work of composers, musical figures, performers, etc.

Pedagogical effect of using the project method was that it involved students into creative and at the same time research productive activities, taught them to think and acquire knowledge independently, while arousing interest in the discipline "History of foreign music". Students searched for information, structured previously gained knowledge, learned to analyze, synthesize, formulate a learning issue, and looked for ways to solve it, and so on.

In addition, music-students who are actively engaged in project activities formed various competencies that will be in demand in their future professional life. If the project was a group work, then students formed and developed communicative competence, including ability to positions of other people take into account, to perceive statements of an interlocutor, to enter into a dialogue, and, what is most demanded today in various areas of professional activity - to work in a team. Artistic communication was carried out, including external dialogue that is a dialogue about art with real interlocutors, during which a person develops understanding of value of each person, his / her thoughts, judgments, ability to exchange information with the interlocutor, respect opinions and positions of people around them, and desire to understand them [10].

Besides, students also showed interest in certain musical works, looking for music-sheets for a further performance. In this case, they used music material that was offered on Internet sites.

When perceiving different interpretations of musical works presented by different musicians, students found the most appropriate, in their opinion, to a composer's idea. The study of different interpretations of music allowed each student to identify those special specific moments of performance that can be demonstrated to the audience at a concert, exam or credit.

An effective method, realization of which is possible only by implementing digital technologies is comparison of performance of a vocal performance in different languages. Using examples of such performance allowed teachers to find a variety of opera and chamber vocal material to compare performances of singers in different languages. In development of this method, students can be offered a free discussion on the topic "Music and the word: the main and secondary", "Whether the Opera house needs a translation of a vocal work by a foreign author", etc.

The principle of organizing independent educational, research and project activities of students was realized in the process of applying the method of projects by teachers of music universities in China, creating multimedia advertising by students, while the themes or personalities of composers were chosen by students according to their taste preferences, level of professional training, etc.

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#### **4. CONCLUSION**

Experimental verification of students' achievements in mastering the content of the discipline "History of music" was carried out. The results of the experiment allowed us to conclude that the use of digital technologies by a higher school music teacher has a positive impact on the development of students' musical experience – assimilation of theoretical concepts, creative script of

the process of applying the method of projects by teachers of music universities in China, creating multimedia advertising by students, while the themes or personalities of composers were chosen by students according to their taste preferences, level of professional training, etc.

The principle of realizing educational process in a distributed learning environment was implemented in the process of students' work with the Internet sites, which in this case are integrated into a single distributed educational environment, because information used, organization of cooperation, was carried out on the basis of synchronous and asynchronous interaction.

The principle of individualization of learning in the educational process of the discipline "History of foreign music" was realized in the fact that teachers recognized the status of participants of educational process with a stable system of individual traits and offered various themes for creating multimedia advertising, educational research and music and art projects for students. Teachers helped everyone to find an individual pace of work and his / her own way of overcoming difficulties.

The purpose of the control stage of the experiment was to test the effectiveness of introduction of digital technologies in the educational process of the discipline "History of music" for students of Jilin pedagogical University and Changchun Guan Hua University of China. A comparative analysis of the initial and final sections showed significant dynamics in the development of their musical experience.

The results of introduction of digital technologies (multimedia presentation, materials of sites related to musical art, multimedia programs for students to master new musical material in various formats) in the educational process of the discipline "History of foreign music" showed that these technologies affect development of the musical experience of music-students: the level of general awareness of music (mastering theoretical concepts, knowledge of various phenomena of musical and social life, creative handwriting of different composers, features of the musical language, musical forms, genres, characteristic features of the sound of Symphony orchestra instruments, etc.)

composers, features of the musical language, musical forms, genres, etc. Students are involved in creative and simultaneously research productive activities, learn to think and acquire knowledge independently. At the same time they develop interest in the discipline being studied

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