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**CONTEMPORARY DIGITAL ART AS A FACTOR
IN THE CREATIVE DEVELOPMENT OF PERSONALITY**

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Abstract

The introduction of digital technologies in all spheres of life activity involves the person in the process of constant radical transformations. Having penetrated into education, digital technologies open up a wide field for individualization of educational trajectories that meet the needs of each student, ensuring the actualization of the knowledge gained in practice. In these conditions, from an early age you need to learn to have the flexibility of thinking, the desire for knowledge, the ability to go beyond the ordinary to create a new product. It is important to emphasize the comprehensive development of the personality, allowing the child to know and improve their inner world. The above qualities are an integral feature of a person endowed with creative abilities. The key to their development is the introduction the younger generation to the great masterpieces of world art. Contemporary art has not remained aloof from the general trend of scientific and technological progress and is actively using the most modern developments in the field of digital technologies. Electronic and algorithmic music, as well as multimedia operas, are becoming increasingly common in contemporary music. Comprehension of contemporary music by children contributes to the formation of a powerful pedagogical potential, on the one hand, developing their emotional and spiritual sphere and filling them with knowledge, and on the other hand, teaching them how to use information and communication technology in the context of contemporary music innovations..

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1. Introduction

Vigorous changes in all spheres of modern life occur under the influence of information technology. In this regard, education has undergone significant transformation (Gustyahina, 2017; Herring, 2015; Norris, 2015; ZHilavskaya, 2018).

Responding to social needs, modern education is focused on mastering information at a high technological level. The change of the educational paradigm, its focus on the development of a dynamic, constantly changing social arrangement determines the need for the education of creative individuals who know how to navigate in a constantly changing society and actively take independent effective decisions that can transform the world.

Rapid innovative scientific and technological development is actively being introduced into art. In this connection, on the one hand, new trends in popular music are emerging, on the other hand, there is a transformation of academic genres. High art in all epochs was intended to reflect the man of his time. This explains the emergence of new genres based on digital technologies in line with academic music (Allen, 2018; Jawaherlalnehru & Jothilakshmi, 2018).

The older generation at all times treats the new in art incredulously, and sometimes hostile, while children and adolescents perceive it naturally, with sympathy, because it is the art of their time, it meets their needs, it reflects the image of the person of their generation his thoughts and aspirations. As practice shows, the younger generation is actively adopting new genres associated with radical innovations. This is largely due to the fact that innovations in contemporary academic music relate not only to artistic language and compositional features, but also to their interaction with computer programs and the digital environment, which is close and understandable to modern children.

2. Problem Statement

Creative personality development is an acute, unabated problem, judging by the inexhaustible interest in it (Berengueres, 2015; Kaufman & Gregoire, 2015; Morrison, 2018).

To the greatest extent the development of creative abilities contributes to the individual's introduction to the art. Exactly the comprehension of art - the most natural way to develop creativity.

Forming the ability to find new, extraordinary ways to solve problems of varying complexity, art simultaneously affects the emotional sphere of a person, providing a full spiritual, moral, aesthetic and ethical education of students.

Solving a creative task, students are faced with a difficult choice of a variety ways to solve it, requiring the refraction of their knowledge, skills and abilities honed to a certain level of skill. In addition, the high-quality implementation of a creative task brings up a whole range of personal properties necessary in our world, including the ability to use the gained knowledge, to concentrate and switch attention in time, to achieve a goal, not dwelling on the achieved result, to think flexibly, to show independence and intellectual initiative.

In this regard, it is necessary to study the innovations of contemporary music and "transplant" them into pedagogy, identifying on their basis the methods of creative development the personality and familiarizing children with classical and contemporary academic art.

3. Research Questions

In contemporary art, electronic music is becoming increasingly common, in the depths of which new genre hybrids of electronic compositions and multimedia operas are formed. Compositions in the genre of live electronics, that is, with the participation of musicians playing traditional instruments and computer-programmed electronic sounds, combine the sound of music and video demonstration. At the same time, the authorial composition becomes another innovation, where, along with traditional musicians, there are performers on electronics, they, as a rule, composers, as well as video artists or video authors, creators of the video sequence, becoming a full participant in the work (Holmes, 2016; Roads, 2015, Stubbs, 2018; Warner, 2017).

In contemporary art, conceptualism, expressed in the transmission of ideas, gained great importance. Electronic music was the leading springboard for expressing the essence of conceptuality. Electronic compositions and multimedia operas emphasize the focus on intellectual comprehension of what they see and hear. This explains their hypertext, multilingual and multiculturalism, the combination of different musical and aesthetic trends, types of art, forms and principles of various genres - qualities that characterize the plot and musical diversity of works, their synthetics.

Electronic music is becoming more common around the world. Abroad this direction is represented by such composers as Karlheinz Stockhausen, Edgar Varèse, Luciano Berio, Iannis Xenakis, Steve Reich, David Cope, Max Richter.

In our country in the electronic genres work talented composers who create electronic compositions and multimedia operas: Eduard Artemyev, Vladimir Tarnopolsky, Iraida Yusupova, Alexander Khubeev, Nikolay Popov.

In this article, we will identify the pedagogical potential for the creative development of a person under the influence of electronic music genres, focusing the attention on the examples of works by American composer Stephen Michael Reich.

Stephen Michael Reich's composition "Different Trains" (1988) for String Quartet and Tape is based on autobiographical facts examined from the perspective of Holocaust events. For family reasons, having to spend a lot of time on American trains during World War II, Steve Reich imagined that, while living in Europe, trains might have taken him to a concentration camp.

The musical basis for the composition of Steve Reich was the human speech, taken from an interview with the governess who accompanied the composer on trips, the conductor of the American train, and the recording of the memoirs of the composer's peers and survivors from former prisoners of concentration camp. The speech phrases of the interview became samples, their tone height recorded by the notes - the material of instrumental accompaniment.

The composition is composed of several polyphonic layers superimposed on each other: interviews, three separate string quartets, and recordings of sounds of American and European trains were recorded on tape in advance. Simultaneously with the tape recording in concert performance sounds live string quartet. According to Reich (1988), the play reflected both documentary and musical reality, opening up a new musical direction.

This direction was the basis for another essay by Steve Reich - the opera trilogy "Three Tales" for video projection, five voices and ensemble (1998-2002), created in collaboration with video artist Beryl

Korot. The trilogy raises the question of the consequences of technical progress and its influence on the spiritual and moral foundations of humanity. The result was a modified genre of opera - opera multimedia or, in the terminology of the authors - video opera. Actual historical facts of the twentieth century were chosen as plots. The first part is "Hindenburg", which tells about the German airship of the same name that crashed in 1937, the second part - "Bikini", named accordingly to the American island where the atomic bomb test took place, the third part - "Dolly", named after the sheep that was born as a result of experiments in genetic engineering. The heroes of the opera - the participants of the events - on the screen say the pre-recorded interview texts about the incident, accompanied by a music chamber ensemble consisting of ten instrumentalists and five vocalists. Texts were subjected to edit and a series of effects that change the speed of pronunciation, frequency, repeating certain words, underlined by a certain tone height or noise. The video is transformed into a multi-part composition by adding various visual effects, text overlays, and animation.

4. Purpose of the Study

In order to develop the creative abilities of the students, we have to determine the methods of teaching, which will be possible to identify, having studied the features of contemporary music. At the same time, traditional methods of education are being transformed taking into account the use of new information technologies.

Verbal, visual, practical, visually illustrative methods will be accompanied by video commentary about genre innovations, comparison with works written in traditional genres and the search for means of expressiveness that provide works the genre freshness.

Reproductive, problematic, research and project methods will be aimed at children mastering information and communication technologies, with the help of which they will be able to create their own creative product in the likeness of the studied works of contemporary academic music. To do this, you need to identify the linguistic, syntactic, compositional and conceptual features of contemporary compositions, as well as learn how to use a video camera, learn the basics of video filming, and master computer programs designed to create and edit sounds and musical compositions..

5. Research Methods

The methodological basis of the study composed an activity approach in education (Davydov, 1996; Vygotskij, 2017), works about the development of creative abilities (Bogoyavlenskaya, 2013; Hargreaves, 2017; Kirnarskaya, 2004), works about a musicology (Gulyanickaya, 2014; Cope, 1997).

In order to update the research, theoretical and empirical research methods were applied. Theoretical methods included generalization, comparison, systematization, analysis of psychological, pedagogical, musicological literature in order to determine the degree of elaboration of the problem; analysis the concepts of "musical children's development in creative activity", features of modern schoolchildren.

Empirical methods were presented by interviewing, questioning, testing, pedagogical observation, the method of creative tasks, content-analysis of students' responses.

When analyzing musical compositions, it became necessary to turn to musicological methods of analysis: structural, systemic, comparative, stylistic, allowing to penetrate deep into the essence of contemporary music, to compare the compositions in new genres with each other and with works written in traditional genres. This will allow creating an extensive context of musical works throughout a considerable time path of their historical development and discovering the pattern of the emergence of new genres.

6. Findings

In the process of studying electronic musical compositions and multimedia operas, it was possible to outline the directions for reproductive tasks, research and project activities of students developing their creative abilities.

Using legal free software-music constructors and music editors, you can teach children to create electronic compositions following the example of samples of this genre. There are several ways to work.

The first one is the creation of works so-called “concrete music” using sounds recorded on a tape recorder and subsequently transformed with the help of a music editor: thunderstorms, rustling of wind, rain, strikes on wood, metal, glass, rustling paper, differently pronounced individual syllables or voice phrases.

The second way of creating electronic compositions is the production of sounds and noises, easily achieved by students using computer programs. Generating sinusoidal, quadratic, dentate signals, exposing them to various program effects, one can achieve interesting sounds suitable for the subsequent creation of electronic music compositions, sound libraries for sounding radio plays or video clips.

The received electronic compositions must be supplemented with a video series following the example of composers of academic music. In the Internet, you can find and master many programs of creating slide shows, as well as programs that generate images, including in 3D.

Systems of creating visual images, visualizations that allow reproducing their own images, software development programs with plug-ins for creating and editing music visualization are constantly being improved. Working with them requires careful matching of the musical and visual image: their coherence or conflict reveals the drama inherent in the music.

Greater interest among students causes the ability to independently create a video sequence, assembling it from the library of video clips or shooting it by yourself. To do this, at first it is necessary to carry out the preparatory stage of work, having completed a number of tasks aimed at mastering information and communication technologies.

One of the tasks is to find photos on the proposed plot in the video archive. Another is to prepare a plot from frames of famous cartoons and films. The third is to independently shoot videos that correspond to the proposed plot. All the various tasks will require a detailed study of the script, the training of necessary frames, their installation, the creation of a complete narration. The obtained results should be watched by all students who participated in the creative process, kindly discuss each video, justifying good luck and mistakes.

Having passed the preparation stages, you can proceed to the implementation of larger tasks, anticipating the creation of creative projects. The example of Steve Reich’s video opera inspires to create

compositions of similar design. To do this, you need to use techniques from journalism regarding interviewing, as well as literature and history, choosing a vital event or a significant event that is significant in importance and process it by making a suitable script or a libretto. First of all, you need to choose an interesting event for all. This may be a large-scale topic concerning the times of the Second World War, events of regional significance, a single class or the family of an individual student. Taking a pre-arranged, prepared interview with the participants of the event, it needs to be programmatically processed, if necessary, adding or removing noise, applying computer sound effects, and creating an audio product.

The next step is the development of a video that relates directly to the incident, or related associations. To do this, you can pick up a video sequence from the available archives of video chronicles or create it by yourself by shooting the plots on a video camera. Artistically processing the video, adding the necessary effects and achieving high quality, we get a video product. The software connection of audio and video provides a result similar to the ideas of Steve Reich video operas.

To implement one of the options for the project activity, we will create video materials for a live concert performance of classmates studying musical instruments. You can take your own footage video or prepare it from the library of online resources, making a video in the form of a slide show of interesting drawings or photographs, or from your favorite cartoons and films. It is very important to think over and thoroughly discuss the plot sequence of the future video sequence.

Taking an active part in the creation and development of the information educational environment, it is achievable to expand the communication process, making a project of creation the creative products using the latest technologies - interschool, district, city, regional, and perhaps reaching a certain skill, reach the international level.

7. Conclusion

Technical improvement of information and communication technologies, determining the scale level of the world globalization processes has an impact on all phenomena occurring in society. Information and communication technologies have received particular attention in art. The interactions of musical patterns and information technologies were the result of the emergence of new genre varieties of academic music, including electronic musical compositions and opera genre hybrids, such as multimedia operas, media operas, or video operas.

The saturation of the Internet with the genres of academic music - traditional and new - opens up wide possibilities for their use in the pedagogical perspective. Creativity is an important driving force directing the vast content of cyberspace into the mainstream, which has a powerful spiritual, moral and aesthetic potential. Introducing students to the masterpieces of world art, explaining the laws of their construction, it is necessary to teach them to refract the gained knowledge in various types of creative activity.

Contemporary compositions store a lot of possibilities of project activities. Thanks to synthetics, the new genres cover a wide range of different types of art, including, in addition to instrumental and vocal music, electronics, literature, painting, graphics, cinema, animation, light art.

Learning the best examples of world art, trying your own strength in creating the creative products on their likeness, students will feel themselves like creators of works, able to find real existence in the virtual space of the Internet.

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References

- Allen, J.A. (2018). *Music Theory for Electronic Music Producers: The producers guide to harmony, chord progressions, and song structure in the MIDI grid*. Minneapolis: Slam Academy.
- Berengueres, J. (2015). *The Art of Creativity*. North Charleston: CreateSpace Independent Publishing Platform.
- Bogoyavlenskaya, D.B. (2013). *Odarennost': priroda i diagnostika* [Giftedness: nature and diagnostics]. Moscow: ANO «CNPRO» [in Rus.].
- Cope, D. (1997). *Techniques of the Contemporary Composer*. NY: Schirmer Books.
- Davydov, V.V. (1996). *Teoriya razvivayushchego obucheniya* [Theory of developmental learning]. Moscow: INTOR. [in Rus.].
- Gulyanickaya, N.S. (2014). *Muzykal'naya kompoziciya: modernizm, postmodernizm. Istoriya, teoriya, praktika* [Musical composition: modernism, postmodernism. History, theory, practice]. Moscow: Yazyki slavyanskoj kul'tury. [in Rus.].
- Gustyahina, V.P. (2017). *Mediaobrazovanie* [Media education]. Novokuzneck: NFI KemGU. [in Rus.].
- Hargreaves, D. (2017). *The Psychology of Musical Development*. NY: Cambridge University Press.
- Herring, S.C. (2015). New frontiers in interactive multimodal communication. *The Routledge handbook of language and digital communication*. London: Rutledge.
<http://info.ils.indiana.edu/~herring/hldc.pdf>
- Holmes, Th. (2016). *Electronic and Experimental Music*. NY: Taylor & Francis.
- Jawaharlal Nehru, G., & Jothilakshmi, S. (2018). Music Genre Classification using Deep Neural Networks. *International Journal of Scientific Research in Science, Engineering and Technology*, 4, 935-940.
<http://ijsrset.com/paper/4076.pdf>
- Kaufman, S.B., & Gregoire, C. (2015). *Wired to Create: Unraveling the Mysteries of the Creative Mind*. Los Angeles: TarcherPerigee.
- Kirnarskaya, D.K. (2004). *Psihologiya special'nyh sposobnostej. Muzykal'nye sposobnosti* [The psychology of special abilities. Talent for music]. Moscow: Talanty XXI vek. [in Rus.].
- Morrison, N. (2018). *The Art Habit: Art & Creativity from the Inside*. Seattle: Kindle Edition.
- Norris, S. (2015). *Multimodal Communication*. Berlin-Boston: Walter de Gruyter GmbH.
- Reich, S. (1988). *Different Trains*. London: Boosey & Hawkes.
- Roads, C. (2015). *Composing Electronic Music: A New Aesthetic*. NY: Oxford University Press.
- Stubbs, D. (2018). *Future Sounds: The Story of Electronic Music from Stockhausen to Scrillex*. London: Faber & Faber.
- Vygotskij, L.S. (2017). *Psihologiya iskusstva* [Psychology of art]. Moscow: Ripol Klassik. [in Rus.].
- Warner, D. (2017). *Live Wires: A History of Electronic Music*. London: Reactor Books.
- ZHilavskaya, I.V. (2018). *Mediaobrazovanie molodezhi* [Youth media education]. Moscow: MPGU. [in Rus.].