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#### TECHNOLOGIES FOR TEACHING MUSIC TO BLIND CHILDREN

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**Abstract:** The article analyzes the features of the process of teaching music using music-computer technologies to blind people, due, in particular, to the complexity of the complex of mental reactions of persons with profound visual impairments. The possibility of changes in the content of music education is considered in connection with the use of specialized software and hardware, digital educational resources that transform the music learning environment for students with visual impairments.

**Keywords:** Information technologies in education, music and computer technologies, computer musical creativity, inclusive education, musical education, persons with profound visual impairments.

#### INTRODUCTION

The development of information technology allows us to significantly expand the methods of obtaining information. Of particular importance is the possibility of using a music computer (MC) [1] musicians with profound visual impairments, for whom it is a means of making contact with the "outside world", and also helps in realizing their creative potential and adaptation in the modern social environment. With the help of speech synthesizers (screen access programs such as Jaws or NVDA), the use of hot keys, it is possible to master music programs. Mastering MC allows you to facilitate and make the learning process more effective.

### MATERIALS AND METHODS

Innovative music pedagogy at the present stage is associated with the use of MCT - a modern and effective means of improving the quality of teaching the art of music at all levels of the educational process. However, the features of mastering music-computer technologies (MCT) [3] by musicians with profound visual impairments has a number of characteristic features that are most clearly manifested in the initial period of training. The challenge is to find the optimal way for blind musicians to comprehend MCT. To do this, we have developed a methodology for teaching these technologies, considering MCT not only as a necessary element of knowledge for a modern musician, but also as one of the means of transmitting musical culture to children with visual impairments. MCTs are "an irreplaceable tool in the educational process for various social groups in introducing highly artistic musical culture, as well as a unique technology for implementing an inclusive pedagogical process when teaching people with disabilities" [2].

### RESULTS AND DISCUSSION

A high-tech information educational environment requires the search for new approaches and fundamentally new teaching systems in the School of the Digital Age [3]. The use of MCT in the field of inclusive education opens up broad prospects both for people with disabilities and for teachers working in this field. For musicians with profound visual impairments, MCTs are primarily a means of contacting "outside world". On the other hand, MCT contributes to the adaptation of blind people in the modern social environment and becomes a tool for realizing their creative potential.

Identification of the features of the use of MCT programs in teaching music to children with profound visual impairments and the possibilities of using MCT in music schools for blind children is one of the most pressing tasks of modern inclusive education, which was reflected in

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the speeches of scientists and practicing teachers, participants in the annual international scientific conference. practical conference "Modern music education" [4].

The process of teaching MCT to people with profound visual impairments is associated with two main points. First of all, a computer makes it easier for a blind person to access various types of information, but at the same time, people with profound visual impairments experience a complex set of mental reactions that the teacher must keep in mind when conducting classes.

The specificity of teaching MCT to the blind also lies in the fact that this contingent of students is heterogeneous in terms of the type of visual pathologies present, the type of visual impairment, the time of onset of the defect, etc. (Yu.E. Krivodonova and A.M. Voronov are engaged in a comprehensive study of this problem). It is visualization that is of great importance in the process of mastering computers by blind people, since it is thanks to the ability to create a certain picture in the imagination when studying a particular computer program that the rehabilitator develops an adequate idea of his own actions; this forms a person's image of himself as a figure capable of understanding certain computer programs [3]. Visualization plays a particularly important role in the development of MCT programs by blind people that are objectively more difficult to learn than basic ones.

The use of MCT in teaching blind children should be dosed, timely and proportional to the capabilities of each student, since only an individual approach taking into account the health status and psychological characteristics of a particular child can become the basis for classes with children with profound visual impairments. In this regard, it is advisable to master MCT programs also in individual lessons, and not just in group ones.

To introduce special disciplines into the curriculum aimed at the systematic study of MCT, significant changes are needed in the system of primary music education for children with profound visual impairments. In our opinion, it is most advisable to begin the implementation of such projects with pre-professional training programs, which are carried out in grades 10-12 and are aimed at enrolling blind students in music colleges and higher educational institutions.

#### **CONCLUSION**

At the same time, it should be noted that certain advances have been made in the field of computer modeling of the process of musical creativity using MK [5], which creates favorable conditions and opportunities for its adequate display using the previously described screen access systems and speech synthesizers for people with severe visual impairments.

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