Brief Discussion on the Time Significance of the Songs of the War of Resistance in the Mudanjiang River Basin During the Fourteen Years’ Anti-Japanese War Based on Computer Multimedia Technology

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Abstract. Multimedia technology can integrate texts, pictures, animation, video, audio, and other information units. Songs based on multimedia technology are unmatched by any traditional teaching approaches. The musical elements in the songs of the War of Resistance have spread widely among the people for thousands of years, passing forward the important music styles that the people are highly familiar with and those with continuous derivation, development, and spread in the national folk music. From practical music creation, the time significance of the songs of the War of Resistance based on modern multimedia technology is explored based on the principles that should be followed in music creation.

Keywords: Information Technology (IT), Music Teaching, Practice and Application

1. Introduction

The 21st century is an era with rapid development of modern multimedia technology. Multimedia technology has the characteristics of integration, synchronization and interactivity, as well as the integration of information units such as text, pictures, animation, video, and audio. It has the characteristics of sound images, audio-visual listening, creating atmosphere and inspiring emotions. It is a traditional teaching method. Incomparable [1-2]. The Northeast War of Resistance Culture was a literary and artistic creation and cultural activity with the theme of anti-Japanese war and national salvation that originated in Northeast China from 1931 to 1945 [3-4]. With the intervention of modern multimedia technology, it has had a great impact on the development of music curriculum resources and music education at traditional colleges and universities in China. Multimedia music teaching-changing the stereotyped, single-and dull teaching form of traditional music teaching has formed the traditional college music education. This comprehensive breakthrough and impact showed contemporary college students a brand-new teaching form, which made them feel the magical charm of music and greatly increased the strong interest of college students in learning music [5]. The application of multimedia technology in music creation has also caused fundamental changes in the teaching concepts, teaching forms, teaching approaches and teaching approaches in music creation, opening a brand new page in the history of music composition education [6].
This article will use the songs of the War of Resistance in the Mudanjiang River as an object of investigation, focusing on analyzing the characteristics of the War of Resistance culture based on the multimedia technology, reflecting strong patriotism, reflecting the spirit of the times serving the war, highlighting the strategy of unity and cooperation and united front, and highlighting the convenience of understanding emotional expressions.

2. Application principles and advantages of multimedia technology in music creation
Multimedia, also known as multi-media, refers to the use of a computer as a platform to effectively combine various information exchange methods such as text, graphics, video images and sound, so that the relationship between people and computers is more harmonious and natural. Dialogue forms a human-machine interface in which text, graphics, images and sound coexist, to expand the application field of computers. Multimedia is mainly used in the teaching of various professional theoretical courses, various types of music creation, teaching reform and teaching research, as well as extracurricular exercises and self-study of students in college music teaching. Hence, CAI courseware characterized by computer multimedia came into being. With its image, intuitive, fast, efficient and unique participation and interactive functions, it plays an active role in optimizing classroom teaching and promoting quality education.

2.1. Application principles of multimedia technology in music creation

2.1.1. The application of multimedia technology should adhere to the principle of reality. The production of multimedia courseware must have a clear purpose, whether it is a demonstration courseware to help solve the difficult points, or an interactive courseware that reflects the independent learning of students, they must serve the teaching. To apply multimedia methods in music lessons, we must start with careful preparation of lessons, determine the teaching content and teaching objectives, clarify the teaching ideas, and design the teaching process. The insertion of the courseware in the classroom should be arranged in advance to design the best plan for the use of courseware. Classroom teaching is a personalized activity. Creators should select multimedia production software and various audio-visual materials required in music lessons according to the teaching content and their own advantages to produce highly feasible music courseware. Good courseware can only be produced on the basis of the optimal design of teaching under the guidance of modern educational ideas.

2.1.2. The application of multimedia technology should follow the timely, moderate and appropriate principles. Teaching with the application of multimedia technology is undoubtedly more vivid, vivid and attractive than traditional teaching media because it mobilizes a variety of audiovisual methods. Hence, the application of multimedia should follow the principles of timely, appropriate and appropriate. The right time is to use the multimedia to choose the most important teaching points for students to master, and make the teaching achieve the best time. Appropriate, that is, multimedia should be used just right, not far-fetched. Moderately, it means that the use of multimedia should not be abused by arrogance, nor can it not be used because of choking. Not all teaching content and teaching links need multimedia to function, so the classroom cannot be turned into a multimedia exhibition. Even the related content designed to solve the difficult points and promote students' self-directed learning should not unilaterally pursue “colorfulness” to avoid negative interference. This requires that in the course of designing courseware, we should not be greedy for more, but should highlight the key points, pay attention to the reality, and pay attention to the actual effect of teaching. The use of multimedia courseware is ultimately to serve the teaching, so courseware production needs to pay attention to its harmony, pay attention to the production art, to play the best effect. In the process of music teaching, the use of multimedia technology needs to find the entry point of multimedia and teaching content. At the same time, it also needs to strengthen the pertinence of multimedia-assisted teaching and avoid excessive dependence on multimedia.
2.2. Application Advantages of Multimedia Technology in Music Teaching

2.2.1. The application of multimedia technology allows more diversified means of music creation. Multimedia music creation has the characteristics of large amount of information, strong interactivity, quick and easy, intuitive image, etc. It stimulates human senses through images, text, sound, etc., as shown in the music artificial intelligence (AI) in Figure 1, which encourages creators to produce rich imagination. And association has played an important role in improving creative efficiency and unfolding image thinking.

2.2.2. The application of multimedia technology offers efficient and convenient tools for lectures. In the music class, great importance is attached to the composition of music scores, and manual writing is slow, difficult to modify, and difficult to standardize. If you use computer music software and simple keyboard operations, you can make the work of writing music not only fast, but also standardized to complete complex score writing, and easy to modify. With the support of computer music software, writing music through the keyboard can achieve the synchronization of music thinking, music writing and sound, i.e., the music can be directly expressed and recorded on the computer music score by touching the keyboard with your finger. In this way, the creative thinking of the creation is very coherent, and it is easy to capture the inspiration in the creation, and can directly feel the actual effect.

![Figure 1. Role of AI (AI) in music](image)

2.3. Composing styles of the songs of the war of resistance

From the perspective of the audience and music creation, the “big self” emotion in music creation and its works and the noble humanistic quality with common characteristics and the educational effect achieved through music art are the positive aspects of music creation in this period. The center of gravity is reflected. As an the War of Resistance song with a distinctive ethnic music style, its creative activities and musical works are highly artistic. In the creation of some adaptations of national folk music, it is not simply to fill in words or transplant on the basis of the original folk music, but to carry out appropriate and innovative development. In many newly created musical works, it can effectively absorb advanced Western creative methods and organically combine it with Chinese musical elements. For example, in the revolutionary war years, to solve the problem of the acceptance of revolutionary music by the majority of workers, peasants, soldiers and the masses at the grassroots level, many adapted songs of the War of Resistance works were adapted by musicians to effectively extract the
essence of the original folk music. Starting from the combination of lyrics and tunes, tonality, tune structure, regional style and expression, etc., the original works of national folk will be processed and transformed, and finally it will become a representative song of the War of Resistance work.

With continuous development, songs of the War of Resistances have exhibited a variety of musical art forms. All these art forms are not only reflected in various vocal, instrumental, opera, dance, and singing and dancing fields, but also were once created and There are classic artistic expressions in the second creation. A large number of songs of the War of Resistances can pass through the time and space of history, and have been enduring among the broad masses of the people. This not only reflects the songs of the War of Resistances from affecting the aesthetic taste of the public to the aesthetic criteria that affect the creation of Chinese music, presenting the comprehensiveness and diversity of the songs of the War of Resistances in their own development. Many works have effectively borrowed the advanced forms and methods of music creation in the West, especially these forms and methods have been organically combined with Chinese musical elements. To create high-quality and high-level musical works, many musicians put the shaping of the artistic image of Chinese characteristics first, combined with Chinese and Western music creation activities. All creative skills and means are about shaping artistic images and further creating songs of the War of Resistance with the perfect combination of artistic image and artistic skills.

For different types of editing of songs of the War of Resistances, different music data can be processed:

1) Class attributes
The membership function of the class attribute is shown in equation (1):

$$\mu_i(C^i) = \frac{N(C_i)}{n_i} \quad i = 1, 2, 3, \ldots$$

(1)

The meaning of the variable is the same as the membership function of the above numeric type.

2) Null's membership function

$$\mu_i(S_j) = \begin{cases} \min(\mu_i(S_j)), & r_0 \leq l_0 \\ \text{mid}(\mu_i(S_j)), & l_0 < r_0 < h_0 \\ \max(\mu_i(S_j)), & r_0 \geq h_0 \end{cases}$$

(2)

The Null membership function is shown in equation (2), where $S_j$ represents the attribute value of the $i$th element and the $j$-th attribute. $r_0$ represents the proportion of the value Null in all data, $h_0$ represents the corresponding threshold with a higher percentage, and $l_0$ represents the corresponding threshold with a lower percentage.

3. Application of multimedia technology to pass forward the music culture of the war of resistance
As multimedia technology features image, intuitiveness, high informatization, network interaction, etc., therefore, the use of sound spectrum analysis technology, X-ray photography, slow stroboscopic, fast camera, electromyography tester, MIDI technology and recording and The video recording function has an irreplaceable role in changing the traditional music classroom teaching mode and optimizing the efficiency of music classroom teaching.

From the perspective of the development of Chinese culture and art, songs of the War of Resistances are the most prominent and representative music culture. In the history of modern and contemporary music in China, the anti-link song is the most influential representative of the music culture among the masses of people. It clearly reflects the new Chinese music has inherited its own traditions and absorbed the West organically since modern times. The characteristics of advanced
music culture and the resulting many creative activities with new music characteristics, a large number of excellent musical works and colorful artistic expressions. Therefore, it can be said that songs of the War of Resistances played an important leading role in the promotion and construction of Chinese culture and art in the 20th century. In theoretical research, songs of the War of Resistances are also important theories and academic achievements that constitute the overview of the development of Chinese modern and contemporary music and even the overall art..

The social and contemporary functions of art works are fully exerted so that they have the educational significance of sublimating thoughts and emotions, promoting noble quality and reality. Combining the above two points, in the first half of the 20th century, the revolutionary music led by the Communist Party of China attached great importance to the social value and significance of the era of artistic creation. All creative activities must consider their own social and epochal functions at the starting point. Here, it can be said that it is determined not only by its own attributes of revolutionary literature and art, but also by the transformation of Chinese culture and the rapid development of new music since modern times. As far as the former is concerned, from the period of the Central Soviet Area to the period of the Liberation War, culture and art have always been an important field in the revolutionary camp to show the spirit of progress and advanced thinking. Doctrine, a way of artistically reflecting real life and having a positive educational effect.

Based on the unique advantages of multimedia technology in visual effects, auditory effects, etc., “three transformations” in vocal music creation can be implemented, i.e., abstract material visualization, dynamic process visualization and complicated knowledge simplification. For example, classic audio-visual materials of famous masters and famous songs, etc., provide accurate and detailed reference for the teaching of teachers and students. Teaching means, such as audio recording and video recording, have played a significant role in improving the quality of music creation. Based on multimedia technology, MIDI technology can be used to make piano playing and practice songs first, coupled with the effect of an orchestra to practice or sing for others. Moreover, the creator is also liberated from the process of playing the accompaniment, and can more fully pay attention to and guide other people's voice status and music expression. Creation of songs based on the MIDI technology is shown as figure 2.

![Figure 2. Creation of songs based on the MIDI technology](image-url)
The multimedia technology is used to create pleasing scenes, to enable students to breed feelings like seeing others, hearing their voices, and being on the scene, inspiring students to actively explore emotions, arousing the interest of students in vocal learning, and cultivating students' personality and art Cultivation and aesthetic appeal. In the process of appreciating these musical works, students can not only obtain a lot of relevant musical knowledge, but also gradually achieve the ability to appreciate and understand vocal works, and learn from these excellent works to strengthen their musical performance. One of the important links in expressing song content is the emotional processing of vocal works. In music creation, when performing song processing, if you make full use of multimedia audio-visual materials, explain the author's background, creation techniques, etc. to the audience, allow the audience to appreciate the singer's emotional expression of the song and the skills of singing, methods, mouth shapes, facial expressions, etc., which can stimulate the audience's singing passion and correctly express various emotions, thereby enhancing the skills of the audience in vocal works and various musical performance processing capabilities.

4. Conclusion
From the practical music creation, the songs of the War of Resistance in Mudanjiang River Basin are taken as the research object in this study, focusing on analyzing the style of the War of Resistance culture based on multimedia technology. The time significance of the songs of the War of Resistance based on modern multimedia technology is explored through the analysis of the principles that should be followed in music creation.

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References
[1] Mellor S, Kath L M. Fear of Reprisal for Disclosing Union Interest: Assessing the Effectiveness of Perceived Anti-Unionism[J]. Employee Responsibilities & Rights Journal, 2017, 23(2):117-129.
[2] Carreiro J L. Newspaper Coverage of the U.S. Labor Movement: The Case of Anti-Union Firings[J]. Labor Studies Journal, 2015, 30(3):1-20.
[3] Ford J D, Ortiz L. Teaching the role of language in managing organizational change: the sunwest anti-union campaign case[J]. IEEE Transactions on Professional Communication, 2016,49(2): 176-188.
[4] Carreiro, J. L. Newspaper Coverage of the U.S. Labor Movement: The Case of Anti-Union Firings 1[J]. Labor Studies Journal, 2015, 30(3):1-20.
[5] Rachleff, P. The Right-to-Work Offensive: Tracking the Spread of the Anti-Union Virus[J]. New Labor Forum, 2018, 21(1):22-29.
[6] Stephens D B, Kohl J P. The Problem of Anti-Union Bias: Teaching Managers to Negotiate Effectively[J]. Journal of Education for Business, 2018, 63(8):352-356.