Research on the Reform of Music Education and Teaching System in the Network Era

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Abstract
With the advent and development of the Internet age, music teaching has gradually developed to a diversified direction. In this paper, the author analyse the reform of music education and teaching system in the network era. In the classroom teaching of music teaching, the integration of network resources can provide students with a better learning environment. Network music education has a wide range of music information, in the Internet era, through the Internet can collect a variety of music information, and secondly, network music education is also timely characteristics. In short, the development of the network era has a good role in promoting the development of music teaching.

Keywords: Network resource, Multimedia database, Music education, Multivariate extension

1. INTRODUCTION

Under the circumstances of the continuous development of the Internet age, music education has entered a new era of development with its influence, and great changes have taken place in the teaching content and teaching methods. In recent years, the application scope and cyber source of music teaching in the field more widely, not only can be used in the classroom teaching, is to infiltrate outside the classroom aspects, teachers gradually understand the use of cyber source to supplement the traditional music teaching, the convenience of using the Internet to make music teaching mode perfect. In the background of Internet era, in the process of learning music, students' interest in learning has been greatly improved, learning methods also have a certain degree of change, that is one of the important manifestation of network technology impact on music teaching. In the network system, communication and sharing resources have become more and more fast and convenient, it has good effect to promote the development of music education, music can make teaching more specific and vivid. In short, the development of the network era has a good role in promoting the development of music teaching, the author of this article around this problem in detail.

With the development of economy and culture, the country's education has also made rapid development. Art education is an important way to carry out quality education in schools, and the music courses which are liked by students have been generally valued by schools and society. The development and integration of music teaching material resources has become an important way to develop music teaching in schools. The form of music curriculum resources is very diverse, and the broad Internet platform provides a lot of valuable materials for the integration of music curriculum resources. Network music education resources covering the content and different disciplines of knowledge, not only reflects the rich and comprehensive cyber source, also can spread music teaching idea and advanced method, the values of music education and the advanced culture of music. However, the current situation, the use of network curriculum resources of music education and the integration of attention, and the utilization rate is not high, there is no complete attention to the network music resources, promote the development of music teaching.

From the overall goal of the construction of school music curriculum in China at the present stage, whether explicit or implicit Internet music resources, as long as it is able to stimulate students' music learning, cultivate students' good aesthetic idea of music and art sentiment, can really promote the students physical and psychological harmony of music resources, all can be the development and utilization, also can serve in the music teaching. The use of Internet music resources positive advantages of integration and rational allocation of music teaching resources, its ultimate goal is to enrich the school music classroom, enrich the students' artistic life, strengthen students' music practice ability, improve students' creative thinking, cultivate students learn self-control and sentiment. As the music teaching, understanding of music curriculum resource integration must be comprehensive, not confined to the textbook knowledge, but to the flexible use of campus music resources, especially for the now open and sharing network platform, only to strengthen the network music resources consciousness, can carry on the reasonable application in in the music teaching practice in the teaching, promote the curriculum construction, improve the efficiency of music teaching, in order to promote the development of the whole education system of music teaching. Obviously, the network music resources to extend the traditional music teaching changed, the connotation of traditional music teaching more abundant, to carry out school music education activities in the content organization, teaching has a positive innovation. Therefore, combining the development trend of information technology to promote the construction of network music education resources is an urgent task for the music educators.
2. NETWORK MUSIC EDUCATION RESOURCES

2.1. Concepts and types

The network music education resources are relative to the traditional music education resources. Generally speaking, the traditional music education resources including the dependence on paper books, newspapers, magazines, tapes and CD solid material carrier or radio and television analog radio carrier carrying and delivering music education resources. The network music education resources are based on the virtualization of digital technology and the formation of the Internet Internet to save and disseminate new music education resources. It is the product of the combination of music education discipline with modern digital technology and network technology. Generally speaking, the network music education resources have wide narrow two meanings. Network music education resources in the narrow sense refers to specialized services in the music schools teaching resources; and the network music education resources refers to all general and music education related to service for various types of music education resources. Network music education resources exist in the following form: music education network; network music education resources and based on the network music education resources database of various resources scattered on the site; personalized internet music resources, such as personal blog, blog and other music.

Because the Internet distribution in the global scope and no entity boundary constraints, which will inevitably lead to a variety of music education resources distribution range is very wide, music study teaching and music can cross city and inter provincial and international search for the resources they need; on the other hand, due to the independence of the network music education resources site also, lead to distribution network music education resources is very loose, it is difficult to establish a resource directory of the overall index. Dynamic web technology based on the support of network information, it has the characteristics of two-way transfer, which is between music learners and teachers to discuss the Internet, communication and interaction, collaboration provides a strong technical support based on. Moreover, the interaction, communication and cooperation of the network music education resources can effectively break the restriction of the geographical space, and highlight the interactive and convenient characteristics of the network music education information resources exchange.

2.2. Multimedia music teaching system

Multimedia music teaching system is the combination of multimedia computer and computer music system. The system combines the multimedia information processing function of the multimedia computer with the music equipment and music software, and displays the contents of the music teaching in an intuitive, specific and visual way. Application of multimedia music teaching system for teaching, management and other activities, can significantly improve the quality of teaching and work efficiency. Multimedia music teaching system equipment can be divided into the following types: Computer: multimedia computer (including the sound card, TV card, Modem, etc.). Projection equipment: projector, video display platform. Video equipment: video recorder. Audio equipment: audio cassette, power amplifier, speaker. Music equipment: electronic synthesizer.

![Network music resources](image_url)
1) **Multimedia computer:** multimedia computer can handle the text, graphics, images, sound, animation and movies and other media information, you can convert the information into digital signals and edit and modify.

2) **Projector (or large screen color TV):** the computer screen on the contents of a clear, large screen display, so that more people can see at the same time display a variety of text and image information on the computer screen.

3) **Big screen:** hanging on the wall of the classroom, used to accept and display projector projection of the image signal.

4) **Video display:** you can send books, pictures, pictures and real image information directly to the projector or large screen color TV shows; you can highlight and enlarge the local image according to the needs.

5) **TV receiving card:** TV receiving card to watch television program, can be directly displayed on the big screen or tv. The image effect and sound quality are better than that of the common TV set.

6) **Sound card:** sound card is computer audio signal processing accessories, it can carry out the music creation and performance by computer with MIDI interface and the corresponding software can make electronic music instruments.

7) **Speaker:** accept the signal transmitted by the power amplifier, the signal is reduced to sound playback.

8) **Electronic synthesizer:** electronic synthesizer with a built-in computer interface can be directly connected to the computer, which combines music and audio playing keyboard as a whole, through the keyboard to play music directly to the computer input information, which can provide high quality audio, multi tone and multi voice polyphony.

Sequencer software is the most commonly used music software, it can play all kinds of music data recorded into the computer, and then edit, delete, modify, shift splicing, generation of these data, then the data replay sequencer software similar and multi-track digital recorder. The most famous sequencer software is Cakewalk, using Cakewalk sequencer software for music production, digital recording (hard disk recording and audio editing). Can use it to assist the teaching of composition theory, assisted music creation, etc.. The tone editing software is divided into the tone database, the synthetic software and the sampling waveform editing software. Timbre synthesis software is to turn the synthesizer or sound timbre synthesis parameters on the computer to make software, data processing and graphical way to adjust the parameters of instrument, the synthesis of new timbre. Sampling waveform editing software is an electronic instrument with RAM waveform sampler or the use of the software, it is mainly through the waveform data MIDI line input sampler, and then edit it, new timbre synthesis.
3. THE DEVELOPMENT AND INTEGRATION STRATEGY OF NETWORK MUSIC EDUCATION RESOURCES

3.1. The main body of the development and integration of network music education resources

The main body of the development of network music education resources is various. From the third chapter of this article cited the Alto online and China music education network and other network music education resources station case, all kinds of colleges, schools, music education institutions and social education government departments, specialized music association, to profit for the purpose of the construction of cyber source operators and interested in the promotion of personal music in the network world, can become the network music education resources developers or integration. Generally speaking, higher education institutions are the backbone of developing and integrating network music education resources among all kinds of developers and integrators. For example, the China Conservatory of Music is currently under construction, and has achieved initial results of the "China national music teaching resources digitization construction project", is the integration of development, college music classic case of network music education resources.

Therefore, as a kind of course of network transmission based on network distance education, music curriculum can effectively solve the traditional music education by a group of teachers and courses and the problem of the limited resources, can make the music lovers and learners through the network to accept music education of high quality in different regions. Compared with traditional music course, network music course should have the following characteristics:

1) Diverse and effective interactivity: Because the network music teaching both sides are not in the same place, therefore, the network must use a variety of music course interface and website, using a variety of ways to the construction of both teaching and learning effective communication, exchange and interaction mechanism. The purpose is to enrich the media technology means to make the network music education not only to achieve, but also in some ways even beyond the interactive effect of the teaching of solid music courses.

2) Distinct learner autonomy: For network music learners, online courses provide a technical platform that can give full play to their learning initiative, rather than purely music teaching videos. Therefore, in the design of web pages of Web music courses, the hints of learning objectives, the decomposition of learning content and the navigation function of learning paths must be added. The purpose is to make music learners able to network music curriculum objective, content, learning strategies and draw a clear understanding, process and steps to prepare for work can on music learning materials and learning certain arrangements; in order to optimize the curriculum resource allocation, network music teaching time can be in limited and concentrated in effectively, master the knowledge points of the teacher's teaching, and can have interaction specifically with music teachers, so as to achieve a multiplier effect.

3) Openness in the selection and allocation of teaching resources: As the network music teaching can be widely used in all the teaching resources on the Internet, therefore, compared with the traditional teaching, the rich and diverse selection of teaching resources is one of its major features. For such a rich variety of teaching resources, network music course site for teachers must be able to add or delete, reorganization of various teaching resources to provide timely and effective support for learners; also must promptly adjust the strategy and path of music learning to provide comprehensive technical support means.

Figure 4. Network music education resources
3.2. The development and integration of Music Curriculum

The development of music teaching content is mainly the construction of music course, and it has the work flow of the system, and in most sectors are needed to support the corresponding media technology. Select the specific "teaching unit" representative, determine the method, interface style, navigation strategy and other factors of constructing the network music curriculum knowledge system, and in a certain range through the "trial", "audition" and other activities to solicit the views of music learners, in order to determine the overall style of music teaching network. For example, you can choose "cut tone" as a specific "teaching unit", first of all, clear the "teaching unit" the goal is to master the basic form of the cut tone, singing and its role. Then cut into the specific teaching process, which firstly syncopated concept, specify its role is the strength of changing rhythm; however, only the concept of not enough image, also lists "in the section", "in the two section" and "take the rest of the three kinds of slitting sound basic form and attach relevant examples show; and then select contains specific songs, syncopated instrumental fragments as a teaching case, can choose different types of vocal music, instrumental music, such as art songs, opera music and pop songs in the cavity and other types of cases and vocal piano, music and other different types of instrumental case, in order to help students in specific geography and the image of different forms in the solution to all kinds of music in the syncopation, to provide a more comprehensive and profound understanding of the role of syncopation; finally, the segmentation The sound of singing, which can be for beginners four note syncopation is decomposed into two eight note syncopation, or eight note syncopation is decomposed into two sixteen notes, syncopation, be skilled and coherent, in order to make students mastered syncopated singing.

4. NETWORK MUSIC EDUCATION RESOURCE LIBRARY

Network music education resources library is a figure of speech, it refers to the resource integrated system of organization and management of network music education resources, usually includes four parts: multimedia material database, network courseware database, database and case database. By the network music education resources database components can be seen, its main function is the teaching design of the network, the music curriculum organization to provide basic data support, it is the foundation of network music education construction. Two the construction of network education resource can be divided into two parts on the whole, namely, resource management and system management, resource management is each to network music education resources such as multimedia database, network courseware library management system; management is for the resources, security permissions, billing etc. management. Among them, resource management is at the core. Through effective organization, retrieval and management of music resources, network music education resources can play the musical knowledge management function, learning support function and musical knowledge sharing and innovation cooperation based on social function.

Figure 5. Music education resource library
At present, the construction of China's network music education resource library has made great progress, some areas have established a special music education website, which can play the role of resource center. However, at present, the number of network music education resources in our country is still small, coverage is insufficient, the construction level is low, so it is still necessary to strengthen the construction of music education resource library from two aspects of quality and quantity. The retrieval function of China's online music education resource is single, much music education website design only primary retrieval functions, and the retrieved results are often associated with poor correlation subject, highlights the disadvantages of low efficiency of music retrieval. To improve the retrieval function of music education resource, on the one hand to design incremental search function, namely to set up advanced retrieval based on primary retrieval, so that users can carry two screening results of the search search function; on the other hand is to develop the composite field, to effectively expand the search scope.

5. CONCLUSIONS

Due to the influence and restriction of various factors, a series of problems still exist in the network music education resources construction, should be based on the specific technical development trend of research on modern network information, to make the development and integration of network music education resources strategy. These strategies generally include: the use of a rich hypertext and hypermedia to integration, constructing the network music curriculum knowledge system and teaching cases, material system, promote the optimization and design of human-computer interaction, to help teachers and students to create teaching situation; using various types of navigation means, to strengthen the network of music curriculum learning purpose and logic; using intelligent agent technology to network music curriculum learners to provide easy, convenient and efficient learning environment; pay attention to the construction of the dynamic web environment, learning network music courses provide collaboration tools to build autonomy and collaboration combination.

REFERENCES