Research on the Application of Computer Music Software in College Traditional Music Course

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Abstract. The traditional teaching mode of music course is still based on the theory teaching mode of teachers. It is difficult to give full play to the main position of students, which leads to the low learning enthusiasm of students and the difficulty to fully stimulate their interest in learning. Based on this, this paper first analyses the music knowledge and the application of music software, and then studies the commonly used computer music software in university traditional music teaching, and finally gives the advantages and specific utilization strategies of brain Music software in traditional university music course.

Keywords: Computer Music Software, College, Traditional Music Course

1. Introduction

With the iterative development of intelligent tech represented by computer, it has been widely and deeply studied and applied in many fields, especially in music course, which greatly promotes the improvement of music education level [1]. With the maturity and progress of intelligent tech, computer music software based on computer tech has gradually become popular. The current computer music software has been greatly improved in terms of hardware capability and software level. The popularization of computer music tech software in the field of traditional music and the realization of virtual production environment have greatly improved the teaching efficiency and quality of professional music education courses.

The utilization of computer music software in the field of music has experienced the stages of multimedia, music production and music system. With the development of computer tech, music production tech has been improved [2]. At present, music production based on computer music software has become more and more abundant. In the traditional music teaching course of university, the utilization of computer music software course has greatly improved the existing teaching mode and teaching efficiency.

In addition, computers continue to expand the utilization space in the field of music art and music education. And as a modern means of teaching, computer music software is being mastered by the majority of music educators [3]. The traditional music education curriculum mainly includes several important contents as shown in Figure 1 below. However, the academic lacks correct and profound understanding of music theory before it is just introduced, which leads to the weak knowledge of music theory. However, the traditional teaching mode is still based on the teacher's theoretical
teaching mode, which makes it difficult for students to give full play to their dominant position. This mode leads to students' low learning enthusiasm, learning interest is difficult to fully stimulate, and the utilization of computer music software can effectively change this unfavorable situation. With the help of computer music software as a carrier and platform, it can help to stimulate students' learning motivation for music courses and improve their information literacy and music literacy.

Figure 1. The main contents of traditional music education curriculum.

As a modern information tech means, the utilization of computer music software in traditional music course can effectively improve the backward teaching equipment and means, and further strengthen the practical utilization ability of students, promote the utilization of music audio-visual synchronization and other advantages in teaching, as well as the teaching reform of traditional music course [4]. In short, in the theoretical level of music teaching, the organic integration of computer music software and traditional music courses can further release students' initiative and promote the continuous improvement of students' subjective status. At the practical level, the integration of computer music software and music courses can stimulate students' effective cognition of traditional music and achieve better understanding and perception. The research on the utilization of computer music software in traditional music course of university is helpful to further analyze the conjunction of computer music software teaching and traditional music teaching, so as to further promote the mastery of students' music knowledge and the improvement of music skills, so it has high theoretical and practical research value.

1. Music teaching mode, which makes it difficult for students to give full play to their dominant position. This mode leads to students' low learning enthusiasm, learning interest is difficult to fully stimulate, and the utilization of computer music software can effectively change this unfavorable situation. With the help of computer music software as a carrier and platform, it can help to stimulate students' learning motivation for music courses and improve their information literacy and music literacy.

2. Music knowledge and music software utilization

2.1. The combination of music software and music course

The traditional music curriculum mainly includes the basic music theory represented by the notation and staff, and the harmony and polyphony represented by the orchestration and instrument performance. In terms of computer music software, music software mainly includes creation, music learning, music skills training, music performance software, and its teaching content mainly includes computer basic knowledge and operation, MIDI production and audio recording and processing.

2.2. The basic elements of music

The basic elements of music mainly include melody, rhythm harmony represented by beat, harmony represented by polyphony and polyphony, and timbre represented by human voice and musical instruments [5]. Secondly, there are emotional elements represented by real-time performance or performance. Electronic music sound is the sound processed by computer electronic tech. It has wider frequency, stronger sound intensity and more complex spectrum than traditional music.

2.3. Computer audio files

The physical recording mode of sound is shown in Figure 2 below. The attributes of audio files mainly include bit speed, sampling size, channel, sampling level, audio format, etc. As a standard protocol for exchanging music information between music synthesizer, musical instrument and computer, MIDI is
the standard language used by musical instruments and computers. It can not only instruct the instrument what to do and how to do it, such as playing notes, increasing the volume, generating sound effects, etc., but also can guide other devices to make it produce sound or execute certain action instructions.

![Diagram of Analog Digital Conversion](image)

**Figure 2.** Physical recording of sound.

2.4. Computer music system

First of all, in the hardware level of computer music, it mainly includes multimedia computer, audio card, mixer and recording microphone, monitoring equipment and power amplifier, MIDI input equipment and MIDI sound source, various MIDI instruments, and the most common MIDI keyboard. The installation process of hardware equipment of computer music system mainly includes recording microphone, instrument effect device, recording effect device, computer / audio card, sound card, power amplifier and output socket such as speaker and earphone connected to sound card. Secondly, in the software level of computer music, it mainly includes music production software, audio processing software and plug-ins, as well as other music / audio software, sound source software, music learning software and media playback and control software.

3. Common computer music software in traditional music teaching

3.1. Typical features of computer music software

The typical characteristics of computer music software mainly include practicality, comprehensiveness and flexibility. At the practical level, through the utilization of the software, students' basic music literacy and music professional skills can be greatly improved. At the comprehensive level, the utilization of computer music software can interact with learners intelligently, and make objective and fair evaluation while assisting students' quality training. In addition, in terms of flexibility, computer music software can carry out targeted learning of learning content and key points according to students' personalized characteristics, so as to strengthen students' practice.

3.2. Computer music software commonly used in college traditional music teaching

The computer music software commonly used in University traditional music teaching mainly includes music score making software, audio editing software, automatic accompaniment software and music literacy training software [6]. Among them, the music score making and printing software can realize the functions of making and printing simplified music, making and printing staff music. Secondly, the software can scan, identify, edit and save music score. In addition, audio editing software can record and save, import audio, audio editing, automatic accompaniment and so on. These software can build an effective ear interactive learning environment, and can provide a more comprehensive system of advanced music listening training and solfeggio learning.

4. Utilization of computer music software in university traditional music course

4.1. Computer music software and music teaching design

First of all, in the utilization of computer music software score, it mainly includes the generation of music score picture, generation of electronic picture, screen capture, music score playing, MIDI file
import and export and so on. Secondly, it can realize the mixed arrangement of the staff and the staff in the exchange level. In addition, the utilizations in audio file editing mainly include recording, extracting audio, sound editing and sound standardization. In the music video editing level, we can make video, edit video, and convert video format.

4.2. Advantages of applying computer music software in music courses

The advantages of the utilization of computer music software in music courses mainly include several aspects as shown in Figure 3 below. Among them, the utilization of audio can promote the interaction between teachers and students and the information exchange in the teaching process. At the timbre level, the software can greatly enrich students' auditory field of vision and meet the needs of students for different timbres. The utilization in pitch and playing speed can ensure that there will be no deviation in intonation. In the utilization process of evaluation problems, it can guarantee the scientificity, objectivity and accuracy of evaluation. The utilization in self-study can enhance the interest of learning and stimulate students' interest and enthusiasm.

![Figure 3. Advantages of applying computer music software in music courses.](image)

4.3. Utilization of computer music software in university traditional music course

First of all, in the utilization level of music theory course, the utilization of computer music software can intuitively display the abstract theory, which is conducive to students' better grasp of the key points and difficulties in learning, and cultivate students' innovative thinking and spirit. Secondly, in the utilization level of harmony course, computer music software can help students to distinguish the quality of their homework and enhance their learning enthusiasm. In addition, in the utilization of Solfeggio and ear training course, computer music software can greatly improve the teaching mode and strengthen the teaching content.

In the stage of lesson preparation and classroom teaching, it should improve students' mastery of intonation and rhythm, as well as their ability to feel music. The utilization of computer music software in the course of orchestration can directly show the sound effect of different instruments ensemble, so that students can further master the theoretical knowledge of multi part orchestration. The use of computer music tech to assist the teaching of orchestration method, so that students can truly hear the sound effect of orchestration, greatly stimulate students' interest in learning, improve students' understanding of music knowledge.

5. Conclusion

In summary, the popularization of computer music tech software in the field of traditional music and the realization of virtual production environment have greatly improved the teaching efficiency and quality of professional music education courses. Through the research of music knowledge and music software utilization, this paper analyzes the basic elements of music and the combination of music software and music curriculum. Through the analysis of the commonly used computer music software in traditional music teaching of university, this paper studies the different functions of common computer music software. Through the research on the utilization of computer music software in
traditional music course of university, this paper analyzes the advantages and specific utilization of computer music software in music course.

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