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Application of computer information technology in university music education

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ABSTRACT

With the progress and development of the information age, computer music technology is growing popularity and promotion. Now, computer music technology gradually receives more attention in various colleges and universities, largely affecting all aspects of traditional music teaching mode. Traditional teaching methods encounter many obstacles in modern teaching, which rely solely on music teachers and music and other ways to teach students knowledge of music, can not satisfy the learning needs of students, not to better broaden students' horizons. Therefore, in the new era, the development of music education should gradually adapt computer technology in this field, in order to better improve efficiency in music teaching and promote change in music teaching methods. Computer music has many advantages: easy to operate, easy to learn and durable, which is gradually becomes the main teaching modern music teaching. It can enrich the content of traditional teaching, make students get more exercise in musical thinking, and stimulate student interest in learning.

KEYWORDS

Music teaching; Computer information technology; University teaching mode.



INTRODUCTION

As the number of admissions of all universities in growing, mode of higher education and the number of students have greatly changed. To a certain extent, the increase of the college enrollment rate makes more students to get a better education, but also improve the teaching efficiency of universities and educational role. To some extent, the development of higher education also contributes to the progress and changing of higher education patterns, makes teaching models continue to be improved. Under the transformation of higher education background, music education model in various colleges and universities are also exploring innovative, efficient teaching methods, constantly forming new educational models suitable for China's national conditions and teaching methods.

Currently, there are some problems and contradictions with the growing enrollment in colleges and universities music teaching. College of music teaching resources (whether teachers' resource or teaching hardware instruments) have the relative lack of problems. In order to correctly and quickly solve new problems arising from development, we need to consider how to properly handle the issue that the traditional teaching and modern computer technology perfect combination. Based on the survey about students in the school results obtained are shown in TABLE 1, we can clearly see that the intuitive application of computer technology to the present teaching can be a good solution to the problem of the lack of the classroom resources and teacher resources that brought by the gradually increase number of the students in school. After entering the 21st century, computer technology has been rapid development, applications are constantly expanding, such as the introduction of music teaching in the field of computer technology, allowing full play the role of computer multimedia technology, which can be a good solution to the problem of the traditional teaching mode, and promote learning efficiency, so that the new way of teaching become easier and simpler.

TABLE 1 : Contrast of the number of teacher in the class

University public music curriculum learning spaces	The average accommodate number
Ordinary classroom	60
Computer multimedia classrooms	150

THE IMPORTANCE OF COMPUTER INFORMATION TECHNOLOGY IN UNIVERSITY MUSIC EDUCATION MODE

The traditional class application of a piano and a combined class teacher writing on a blackboard to teach students playing musical knowledge and teaching skills, a serious impediment to the development of music teaching. The teacher wrote on the blackboard tonal harmony, but it is difficult to have an image of the sound in the minds of students, often there will be "visible, listening to vain and uncertain" phenomenon. Even the teacher carefully guide and the students listen attentively, it is difficult for students to quickly remember. Abstract music teaching makes the teacher's job becomes difficult, the students slowly lose enthusiasm for learning. So, each tone must be to play out, so that students have an exact sound experience.

Use of computer multimedia technology that allows music to learn gradually shift from the traditional "oral sound teaching" teaching model to the modern digital teaching mode. Let contemporary music teaching also form a more interactive and efficient teaching mode which has light, sound, electricity of the trinity^[1]. However, due to the impact of music equipment, technology and the concept of teachers, computer-aided teaching of multimedia technology in some schools colleges and universities is still only used occasionally in the open class and study hours. On the one hand, although we all understand the importance of IT in the modern, and that the use of computer-aided teaching of multimedia technologies can rapidly improve the efficiency of classroom teaching. But on the other hand, older teachers who are not good at computer teaching will encounter many problems that courseware design, production and application are more complex and time consuming during the operation in practical applications. Of course, the music teacher can also ask for help to other computer

school staff about the use, design, production methods of the software, but also for computer technology worker can not have an accurate understanding of the intent of teaching music teacher; it will make the preliminary work of the music teacher becoming more difficulties. Therefore, the introduction of computer technology in music teaching mode should also consider the early training of music teachers to ensure that computer technology has been successfully used in the teaching and help teachers save time.

Due to the traditional teaching is not able to give students visual integrated teaching environment, not only teachers work hard, students will also feel very tired, which can not directly change the feelings of syllables, so over time, the traditional way of teaching music students will gradually kill hobbies. On the contrary, multimedia digital teaching can well stimulate students' interest in learning, as shown in TABLE 2.

TABLE 2 : Contrast of students' interest in the music after a period of learning

	Very interested	Interested	Not interested	Not very interested
Traditional teaching	+2	+3	-1	-2
Multimedia teaching	+12	+10	1	0

Now the teaching reform attaches great importance to the formation of good sound quality and stereo sound in music teaching, and fully guarantee that students can have a "vivid, true" sound experience, train the music、rhythm feeling of students, improve student learning speed and enthusiasm. Computer education model is the best application in the present university teaching mode, the use of computers and other equipment to form a modern multimedia teaching methods, the full realization of the integration of audio-visual teaching mode, intuitively convey the feel of tone and tone quality to students.

The application of computer music teaching model not only can improve the efficiency of university music education, but also can save largely of music education resources in universities. It has great significance and role:

(1) Change college music education model by the use of computer music teaching can fully save musical teaching equipment and teacher resources of college of school. Enrollment in our colleges and universities increasing continually along with the growth of the number of students requires conservatory objective teaching resources to convert toward more and more higher and better direction. Universities can only continue to increase the music teaching facilities and the number of teachers, so the school will increase the number of school input costs, so efficiency and effectiveness of the school will fall. However, with the application of computer technology in universities, to a certain extent, reduce duplication investment of objective resources^[2]. Make full use of computer music technology broadcast and replication in the process of the same teaching course, avoiding repetition of the teacher preparation and the teaching of the same knowledge. With reducing the workload of the music teacher, ultimately achieve the purpose that save university teaching cost, and to promote music education reform and development of colleges and universities.

(2) The use of computer technology can supply, improve and promote traditional music teaching. On the basis of inheriting and learning from the traditional music teaching model, educators summarize of the previous teaching methods and educational achievement and experience, this can effectively avoid the disadvantages of computer technology that may exist in the teaching field. Reform the traditional music teaching model, combine the traditional music teaching mode and the high-efficiency computer and play to their strengths, so achieve the perfect combination of the basic music disciplines, music theory and practice, musical skills, teaching efficiency of college music education.

PRACTICE OF COMPUTER TECHNOLOGY MODE IN COLLEGE MUSIC EDUCATION

The component of computers includes the necessary hardware apparatus and a support of much software; the user operates the software using a computer. The introduction of computer technology helps music teachers to make music and lectures courseware materials through computer. In the

classroom, you can always repeat every syllable or music as a model, so that students can fully learn in the classroom, hear the change of every syllable right away in the actual teaching process, have real music rhythm feelings. Music teachers can free decomposition, combine every complex musical paradigm by the help of software^[3]. Let students feel the auditory effect that bring by the combination of different music, not only makes their lessons more vivid, but also reduce the time that student excerpt music and notes, there is enough time and energy on the actual experience of each syllable.

The reform of teaching model, also contributed to constant advance of the theory and practice of teaching. In recent years, Reflective Teaching have gradually developed to the field of education, reflection teachers teaching model shown in Figure 1, the teacher constantly monitoring, evaluation and revision of teaching practices. Teaching is the unity of "Students learn how to learn" and "teachers learn teaching" is the process of students and teachers growing up together. Contact computer applications teaching model, use of computer multimedia technology, give full play to their initiative, on the one hand continue to reflect on their own teaching, on the other hand urge the students to learn how to learn and reflection.

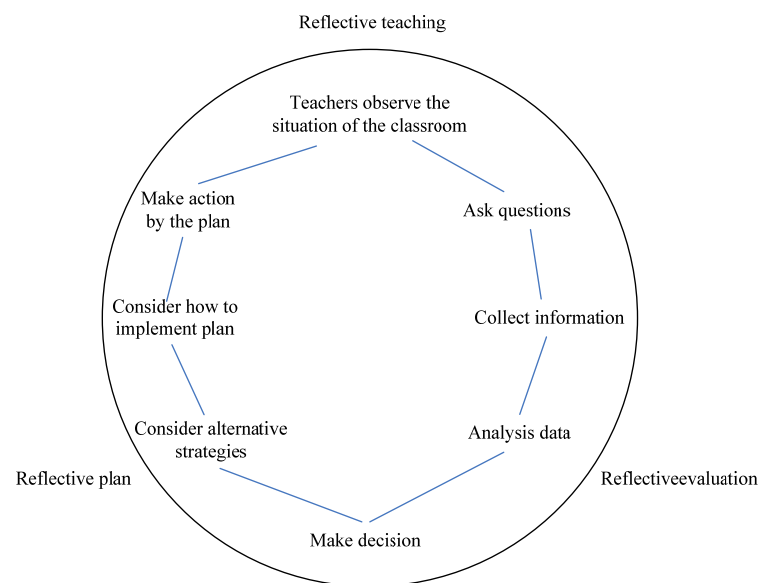


Figure 1 : Reflection teaching model

Application of computer technology in polyphonic lessons

Polyphonic lessons are a compulsory basic subjects in music profession, teachers train students the techniques how to write a music score through polyphonic lessons, gradually train students the ability to analyze, and write in terms of polyphony, make students have more keen sense of hearing on polyphony, train the music feeling of students.

Traditional polyphony teaching has some defects and shortcomings, simply rely on the pattern that one teacher teaches many students, teaching on conditions of the lack of teaching facilities, polyphony lesson is too rational, there are big limitation in the auditory perception, not well train a good music feeling of students, students polyphonic lesson is lack of enough emotional^[5]. So it is difficult to inherit the tradition teaching experience of polyphonic lesson. Previously, mainly show students demo tunes sung by the following two ways:

(1) In the classroom, the teacher first interprets model, tonality and other characteristics of the tune, and teaches the students to sing scales. When students are familiar with the tone, the teacher will continue to explain the difficulty of tunes, the key part, and make students to audition just learning tunes accompanied by piano, identify problems and promptly correct, and repeat until the student is able to accurate sing tunes without the lead of the piano.

(2) After the completion of a section of the new content, the teacher will ask the students to do a lot of practice of new tunes after class. In the next lesson the teacher will check the students' learning and make guidance and correct to ensure that every student has mastered what you have learned so far.

Due to the special nature of the polyphony, it is difficult for students to carry out independent analysis of tunes sang by themselves, so it can not timely correct the error. This is disadvantage of training the student music perception and memory capacity. Students can not remember music tunes what they have learned in time, so there are many problems the student will have when they review after school. After a long time, students will have a lot of problems in the learning; the gap between the students will gradually increase. If the teacher prepares lessons before class: first, repeatedly show polyphonic sound effects what they have learned to students by using Cakewalk music production software, cultivate the ability to perceive and understand the music of the student^[6]. Secondly, create more complex polyphonic music instance by random change polyphony and musical notes in tone, allow students to analyze and interpret the scene. Continue to play a different polyphony, training students' ability to listening and discern.

Show music to students through computer multimedia teaching system, teaching quality and efficiency are improved, but also exercise the students' aesthetic ability and writing skills, so as to achieve the purpose of teaching.

Application of computer technology lesson in musical form

Musical form is the academic subject of music disciplines, analyzing the different carriers, size, age of music, research music-related content, as well as the emotion of the music you want to express, and to regulate the structural condition of different types of musical form.

By analyzing works of musical form we can further understand music ideas and accurately express the feelings of the song while playing. The traditional way of teaching musical is the teaching mode that "students listen to what the teacher talk about on the stage", making the low utilization of class. In addition, students can just listen to music theory knowledge and just master some written rules, not feel changes in music score by auditory perception and so on. Through a survey, it is easy to see that students are inclined to have more time listen to music on the class; the results are shown in TABLE 3:

TABLE 3 : Which form do you think music teaching in

	Combined with video viewing is better	Only need to listen	Theory explaining	Does not matter
Number	726	152	78	44
Percentage	72.6%	15.2%	7.8%	4.4%

After the introduction of computer music technology, the teacher can put the classical orchestration fragments of the famous composer to the computer; re-edit these fragments using the orchestration and related music software^[7]. With the help of music production software (such as Cakewalk), teacher can demonstrate the situation that how to split music to the student, show every place in music that needs to be resolved. Of course, splitting music should follow certain principles, the split can start from any section, stop on any beat, pause by the way, students are able to hear every musical sound effects in the band, you can also learn all times solo set from your computer record, enabling detailed analysis purposes of every music.

In order to achieve the effect of this analysis, the teacher can make computer music technology multimedia teaching in the actual conduct classes by several ways shown following:

(1) Divide students into different learning groups, students can store their own creation or editing musical fragment in the computer with freedom and unrestricted based on personal interests, and then use music production software for diverse editing.

(2) To urge the students to repeatedly play these musical form of music clips, exercise them identify syllables, temperament, musical ability and playing skills, to deepen students' understanding of musical form.

(3) To encourage students to carefully record the computer the number of times a certain style of musical settings when solo, and guide students through the traditional way of playing the beat, develop their ability to accurately grasp the beat musical form.

Application of computer music technology in sightsinging course

Sight-singing is students' only way into the music world, the students training through the sight-singing skills, hearing music, music literacy, to further understand the many elements of musical language, and gradually improve their ability to understand the aesthetic of music. The traditional audition teaching limits dictation tone, intervals, chords, rhythm, melody and other aspects of practice, learned relatively boring. After the introduction of computer multimedia, through demonstration of computer music technology MIDI, and gradually improve students' sight-singing level^[8], and now this approach has gradually become one main teaching methods of the colleges and universities teaching sight-singing courses.

Whether the teacher or student learn by using computer technology, firstly they should design and edit sight-singing music which will be played by electrical computer music technology systems, concrete steps are as follows:

(1) To program sight-singing repertoire and play repeatedly by multimedia system. By comparing, listening, and sight-singing the interval and the scale, etc., to achieve the purpose that teacher can detailed guide each student when group training.

(2) The teacher can pick out some sight-singing repertoire, make the accompaniment, use different styles of percussion and intersperse with various types of rhythm by bit sight-singing, melodic dictation, notes in listening, etc., to enable students to experience different sounds and role of accompany style in the sight-singing.

(3) To encourage students themselves freely arranger and show by the use of computer technology, then the teacher guide in accordance with teaching requirements and student its own characteristics to make the speed, intensity, timbre, pitch, concerto of tune achieve better performance effect.

SUMMARY

As China's education system reform and multimedia computer teaching continue to be applied to the field of education at home and abroad, and modern education ongoing internationalization, there will be more and more experts, scholars and classroom teachers to participate in applying multimedia computer teaching in education study field. In the near future, we will explore more sophisticated teaching theory and more practical teaching model to support computer-teaching mode, give limitless advantages and potential to computer multimedia.

Teaching model of combining computer music technology and multimedia has brought many conveniences to music of universities. It can not only update the traditional teaching model, enrich the teaching content, but also can make the original abstract music theory becoming real emotional and lively. And it greatly broad the students' musical horizons, active the student's musical thinking, arouse the enthusiasm of students, greatly improve the efficiency of musical learning.

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