

# **The uses of multimedia and application in vocal music teaching of undergraduate course at Zhejiang Normal University in China**

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## **Abstracts**

With the development of electronic science and information technology, the interaction and integration between the Internet industry and other industries has become the trend of The Times. The concept of "Internet +" has made the specific application of Internet technology in various disciplines more mature and systematic. As the era of big data cloud computing technology is gradually perfect, the Internet teaching platform to break the traditional vocal music teaching mode in the face to face the limit of time and space, enrich the network resources can be Shared more can enable students to master the latest, cutting-edge academic dynamic greatly improve the convenience of music teaching, to develop the all-round development of students' knowledge, widen students' music view, "Internet + vocal music teaching" is imperative to stimulate students' learning initiative to the greatest extent and realize personalized teaching, to help solve the problems existing in traditional vocal music teachings, such as the uneven level of students and the lack of teachers. Internet + in Zhejiang normal university music college vocal music teaching is an example for analysis through the elaboration of Zhejiang normal university's line of the practice of vocal music teaching, field investigation on the teacher's and students' feedback on the new Internet + vocal music teaching model, data collection, comparison, and analysis, to explore the advantages and disadvantages of the Internet vocal music teaching mode, To find a new way to integrate traditional teaching and innovative teaching mode and provide a reference for the teaching optimization of vocal music education reform in colleges and social music education development.

**Keywords:** Internet; Colleges and universities; Vocal music; Teaching

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## Introduction

At present, the teaching forms of basic piano courses are generally divided into two forms: one-to-many traditional and digital piano teaching classes. Comparatively speaking, there are some differences in the content and form of the two forms of teaching, each with its strengths and weaknesses. Currently, most of the traditional piano lessons offered by music majors in colleges and universities adopt the teaching method of one lesson to four. According to the 45-minute lesson, each student's practice operation is only 11 minutes. Students should finish the homework assigned before, and then they can directly enter the technical practice in class. Otherwise, the practice in class could be more effective. Therefore, the short classroom learning time, students in class alone with teachers exchange opportunities less, and the insufficient amount of learning is the traditional piano teaching class deficiencies. However, the traditional piano teaching class has some advantages, such as strong pertinence and teaching directly according to each student's characteristics and actual situation, which can teach students to their aptitude. The collaborative teaching of a digital piano is just the opposite, every student can guarantee 45 minutes of practical piano practice time, but a teacher can only give teaching guidance to more than a dozen or even dozens of students at the same time, which can only be unified and generally guided, while point-to-point targeted teaching is not enough to take into account the practical problems of every student. This is also the main problem in the current basic piano curriculum. In piano teaching mode in many colleges and universities, the form is single, the content is monotonous, and the teaching practice reform of basic piano courses has become a new hot spot in the teaching reform of music majors in recent years. How to make students "have a good class and a good class" in basic piano courses and let teachers do a good job in class is also a new problem that educators should constantly discuss and deeply study (Fan, 2017).

Through the analysis of the present situation of the basic piano course in colleges and universities, this paper finds out the corresponding reasons, finds out the solutions in a targeted way, and makes a more in-depth study on the teaching form and evaluation system, aiming at fundamentally analyzing the problems that need to be solved urgently and providing more basis for the development of the basic piano course in the future (Wang, 2021).

## Application of Internet plus Vocal Music Teaching Platform of Zhejiang Normal University

### Multimedia teaching equipment

In the context of the epidemic, universities followed the steps of the Party, listened to the arrangements of the state, and opened a new teaching mode. It can comply with national prevention and control requirements and meet the normal operation of school teaching activities. The teaching methods of the Internet plus vocal music course at Zhejiang Normal University are divided into four types: the first is to use multimedia teaching equipment, and the second is to focus on WeChat official account. The third is using the Chinese University MOU class to record videos in advance so that students can learn according to their choices. The fourth way is to use online live broadcasts for teaching, such as Tencent Conference mobile software for distance education.

Based on the traditional teaching mode, Zhejiang Normal University has extensively used multimedia technology, increased curriculum research and development efforts, and strengthened teaching innovation, making teaching methods more diversified. The School of Music of Zhejiang Normal University has a building area of 13,000 square meters, a total of five floors, and 15 multimedia classrooms [The multimedia classrooms are composed of multimedia computers, LCD projectors, digital video display platforms, central control systems, projection screens, audio equipment, and other modern teaching equipment.] Concert Hall. The vocal music teaching material mainly used by the school is the trial teaching material of People's Music Publishing House for teachers, colleges, and universities. Vocal Music Anthology is divided into four Chinese works and three foreign works. In the application of multimedia vocal music teaching, teachers use computers as the media, not to throw away the traditional vocal music teaching mode, but to use multimedia technology to assist vocal music teaching, upload the PPT, pictures, and videos made, so that students can quickly receive information and understand the teacher's teaching intention through projection. Zhejiang Fan University is equipped with various professional music equipment and LED screens in the concert hall. The screen will be projected onto the LED when the concert is held through the background computer. The background pictures and videos of high-definition pictures

### WeChat official account

Vocal music teachers recommend that students use their WeChat official account to pay attention to Zhejiang Normal University's audio and vocal music lecture hall, vocal music class, watch folk songs in China, vocal music department, music omnidirectional, and other WeChat official accounts. These official accounts contain a large number of teaching videos, which can guide students to understand and discover the analysis and demonstration of vocal music works by well-known experts and art masters in the music field during their study, and can also watch the audio and music scores shared by such official account; It is convenient for students to learn and collect data. In this process, on the one hand, students can learn about the diversified teaching styles by watching the singer's teaching video materials, and at the same time, enjoy the singer's unique melody processing methods and artistic expression level, which enables students to deepen their understanding of their musical direction and expand their vision in the related vocal music field while enjoying the artistic works during the class. On the other hand, the teaching found that the diversified vocal music teaching model has also brought great help to vocal music teachers' teaching. Understanding the artistic background characteristics of the selected vocal music while singing it during the teaching period is indispensable. The background of artistic works can be roughly divided into the introduction of the social background of the age of the work, the type of creative style of the songwriters, and the social experience at that time. The vocal music teacher's detailed teaching and explanation of this background information will take a long time for the teaching course. The students may also feel bored, affecting the final teaching effect. In the form of watching small videos, the 20-minute background explanation can be reduced to 10 minutes or even a few minutes, which can be fully and vividly displayed to students, greatly improving the teaching efficiency and quality of teachers' and students' enthusiasm for the class. At the same time, vocal music teachers have improved their teaching mode and achieved more outstanding vocal music teaching results by collecting and understanding the high-quality teaching video courses of singers, excellent teaching cases at home and abroad, and opera excerpts

(Zhang, 2019).

### **Micro courses**

"Micro class" refers to a short and complete teaching activity around a certain knowledge point or teaching link displayed in the form of streaming media after careful information teaching design to enable learners to obtain the best effect of autonomous learning. Its form is independent learning, the purpose is the best effect, the design is elaborate information teaching design, the form is streaming media, the content is a knowledge point or teaching link, the time is short, and the essence is a complete teaching activity. Therefore, the most important thing for teachers is to make micro lessons from the student's perspective, not from the teachers' perspective, and reflect the student-centered teaching philosophy. Micro-class is equal. Although short and small, it is less grand and rich than the general curriculum. However, it is a very important teaching resource with extraordinary significance and obvious effect. Micro classes are not small. Although the micro class is short, its knowledge connotation and teaching significance are great. Sometimes a short micro class is more useful than dozens of classes. The micro class is quick. Micro classes are all based on the principle of small steps. One micro class explains one or two knowledge points. It seems very slow but advances steadily, and the actual effect could be faster. Micro courses are "very effective." Micro lessons can make a mickle. We can achieve great truth and wisdom through continuous micro-knowledge and microlearning (Zhang, 2017).

### **Main characteristics of micro courses**

#### **Main features of "micro class"**

(1) Short teaching time: Teaching videos are the core content of micro-courses. According to the cognitive characteristics and learning rules of primary and secondary school students, "micro class" is generally about 5-8 minutes, and the longest should not exceed 10 minutes. Therefore, compared with the traditional 40 or 45-minute teaching lesson, a "micro lesson" can be called a "lesson fragment" or "micro lesson."

(2) Less teaching content: Compared with the broader traditional classroom, "micro class" has more problems and prominent themes, which is more suitable for teachers' needs: "micro class" is mainly used to highlight the teaching of a certain subject knowledge point (such as the key points, difficulties, and doubts in teaching) in classroom teaching, or to reflect the teaching and learning activities of a certain teaching link and teaching theme in the classroom. Compared with the complex and numerous teaching contents to be completed in a traditional class, The content of "micro class" is more concise, so it can also be called "micro class."

(3) Small resource capacity: In terms of size, the total capacity of "micro class" videos and supporting auxiliary resources is generally about tens of megabytes. The video format must be a streaming media format that supports online playing (such as rm, WMV, flv, etc.) so that teachers and students can smoothly watch classes online and view teaching plans, courseware, and other auxiliary resources; It can also be flexibly and conveniently downloaded and saved to terminal devices (such as laptops, mobile phones, MP4, etc.) to achieve mobile learning and "ubiquitous learning," which is very suitable for teachers to observe, evaluate, reflect and research.

(4) Resource composition/structure/composition "situational": resources are easy to use. The selected "micro class" teaching content generally requires a prominent theme, clear direction, and relatively complete. It takes teaching video clips as the main line to "integrate" teaching design (including teaching plans or study plans), multimedia materials and courseware used in classroom teaching, teachers' teaching reflection after class, students' feedback, and subject experts' written comments and other related teaching resources, forming a "theme unit resource package" with distinctive themes, diverse types, and compact structure, and creating a real "micro-teaching resource environment." This makes the "micro class" resources have the characteristics of video teaching cases

(5) The theme is prominent, and the content is specific. One course is about one theme, or one course is about one thing; The problems studied come from the specific problems in the specific practice of education and teaching: either life thinking, teaching reflection, the breakthrough of difficulties, emphasis, or learning strategies, teaching methods, education and teaching ideas and other specific, real problems that can be solved by themselves or with their peers.

(6) Grass root research and interesting creation. Because of the small content of the curriculum, everyone can become a curriculum developer; It is precise because the objects of the curriculum are teachers and students, and the purpose of curriculum research and development is to closely link the teaching content, teaching objectives, and teaching methods. It is "for teaching, in teaching, through teaching" rather than verifying and deducing the theory. Therefore, it is determined that the research and development content must be problem teachers are familiar with, interested in, and capable of solving.

(7) Achievements are simplified and diversified. Because the content is specific and the theme is prominent, the research content is easy to express, and the research results are easy to transform; Because of the small size and short duration of the course, the communication forms are diverse (online video, mobile communication, microblog discussion).

(8) Feedback is timely and targeted. As the "No Student Class" activity is carried out relatively quickly, participants can timely hear others' evaluations of their teaching behavior and get feedback. Compared with the normal activities of listening to and commenting on lessons, "stir fry now and sell now" is instant. As it is a pre-class "rehearsal" in the group, everyone participates, learns from each other, helps each other, and improves together, which reduces the teachers' psychological pressure to a certain extent, without worrying about the "failure" of teaching and the "offending person" of evaluation, which will be more objective than the normal evaluation.

## **MOOC Education Case - Vocal Music as an Example**

### **Online Vocal Music Course**

Guo Kejian, Dean of the School of Music of Zhejiang Normal University, is admiring classes at China University [MOOC of China University is a software owned by Higher Education Press Co., Ltd.] The "Vocal Music" experiential network vocal music course was launched. The course was launched in April 2020 for five times. The most recent course was held from April 18 to June 15, 2022, and 32058 people participated. Each class usually lasts about ten minutes. The class was recorded in the small concert hall on the third floor of the Conservatory of Music of Zhejiang Normal University. There was a video recorder and a microphone on the scene. This platform is not only open to students of Zhejiang Normal

University but also open to all vocal music lovers. Its goal is to make singing more popular and professional and provide a learning platform for students and vocal music lovers. The registration operation is also relatively convenient. You can directly search for "Vocal Music" when you log in to the Chinese University Moo Course and see the course directly in the main interface. Click "Join Now" to successfully register (Liao, 2019).

Opening the courseware, we can see that the content of this course is mainly divided into eight chapters: The first chapter is the basic theory of vocal music, which is explained by Han Qichao, a distinguished professor of "Double Dragon Scholar" of Zhejiang Normal University. It is divided into five classes, mainly to understand and master the physiological basis of language and singing and to make specific analyses by playing students' singing videos and pictures. The second chapter is about the history of vocal music, which Peng Danxiong, an associate professor of the vocal music department of the Conservatory of Music of Zhejiang Normal University, explains. It is divided into four classes. It mainly explains Western music's history and vocal music's development history in Europe. The third chapter is about the understanding and performance of vocal music works, divided into six classes. It mainly explains the desk work of singing vocal music works, the artistic expression of songs, and the dialectical relationship between song technology and art. The content is a student singing song, accompanied by piano students, and under the professional guidance of teacher Guo Kejian. The fourth chapter is about vocal music's style and singing characteristics, divided into four classes. It mainly explains the singing characteristics of Chinese folk songs and the singing skills of Chinese literati music works. The fifth chapter is vocal music skill training, divided into nine classes. Wu Qianmei and Guo Kejian, associate professors of the vocal music department of the Conservatory of Music of Zhejiang Normal University, mainly explained the use of breath in singing, the vocal function of "true" and "false" sounds, the recognition and training of sound concentration points, the sound skipping practice, the cavity and timbre, the relationship between resonance and singing, and the intermediate vocal training of national singing. The sixth chapter, singing language and performance, is divided into five classes. It mainly explains the relationship between words and sounds in singing, the vocal characteristics of Italian, the relationship between body language and rhythm, and the relationship between body language and context. Chapter 7 is about the singing skills of vocal music works, which are divided into four classes. It mainly explains the singing skills of German art songs, the singing characteristics of large works in Chinese national vocal music, and singing and accompaniment. Chapter VIII Appreciation of excellent talents' singing videos: Dai Wei (baritone) sang Moon River, Zhang Chong (tenor) sang Songhua River, Fang Xianglei (soprano) sang Earl Please Listen, and Wang Lin (soprano) sang Love You in the Next Life and the Next Life (Ma, 2020).

The School of Music of Zhejiang Normal University has launched the online course "Vocal Music," which has incomparable advantages over traditional vocal music teaching. For example, open courses, short video lectures, non-face-to-face courses, unlimited class locations, and personalized recommendations. Colleges and universities should make full use of vocal music teaching, and vocal music teachers should also improve their comprehensive quality and innovate vocal music teaching methods to keep pace with the times.

### Live broadcast online

In the continuous development of the Internet, the teaching resources of mobile APP are rich and diverse, and online live broadcast APP is also widely used. During the epidemic, Zhejiang Normal University mainly used Tencent Conference and WeChat apps to teach students vocal music. Tencent Conference APP, relying on Internet technology, has solved the time and space constraints of school vocal music teaching during COVID-19. It has online teaching methods, online question answering, and other functions, greatly meeting the goal of online teaching of vocal music courses. As a mainstream online app, it supports users to join online courses through mobile phones, computers, or small programs. The main interface is divided into four parts: joining a meeting, fast meeting, booking a meeting, and unlimited projection. It can communicate with one person and many people, greatly improving the convenience of vocal music teaching, facilitating students to integrate into the vocal music teaching atmosphere quickly, and improving their own music literacy. WeChat is a chat software APP, which supports cross-communication operators and cross-operating system platforms to quickly send pictures, videos, etc., through the network. At the same time, it consumes less traffic, has fast network speed, high usability, and is easy to operate. Vocal music teachers and students can call WeChat video phones for online vocal music teaching.

Compared with the traditional offline one-to-one communication mode, the mobile APP allows students to join the exclusive online classroom by creating a conference and sending an invitation QR code or conference number. After both parties enter the classroom, they can open the video and voice buttons for one-to-one vocal music teaching. They can upload PPT or vocal music videos and pictures to facilitate students' understanding of the specific content of the class. The high-definition and smooth picture quality provide a good guarantee for vocal music teaching; it solves the boredom of traditional vocal music teaching, reflects the interest in online vocal music teaching, helps to improve the teaching quality, speeds up the progress of vocal music teaching, and meets the online learning needs of students. The School of Music of Zhejiang Normal University not only asks its vocal music teachers to give one-to-one vocal music course guidance to students but also invites some excellent singers or vocal music educators at home and abroad to give vocal music guidance and explanation to students, which broadens students' musical vision (Feng, 2019).

## Conclusion

By consulting the relevant literature on "Internet plus Vocal Music," we can find that there has been relatively systematic research on Internet plus + Vocal Music Teaching in China. It fully demonstrated the advantages of "Internet Plus." By correctly using the "Internet plus" model, colleges and universities can break the time and space constraints and share resources. However, the practice of vocal music teaching in Internet colleges and universities in China is still at the initial stage, lacking specific colleges and universities as examples. Under the background of the epidemic situation, colleges and universities follow the steps of the Party, listen to the arrangements of the state, and open the Internet plus vocal music teaching mode. This teaching mode can comply with the national prevention and control requirements and meet the normal operation of school teaching activities.

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