The Expression of Sound Art in Piano Performance

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Abstract: *For piano performers, they should apply extensive literary cultivation, conduct in-depth research and understanding of musical works, and then play touching melodies through reasonable playing methods, allowing both the audience and the performer to experience pleasure and generate some associations and imagination, thus realizing the emotions and philosophies that the composer wants to express in music, and achieving the goal of cultivating sentiment. n this essay an attempt has been made to consider the English novel historically. Its principle aim, however, is to help us, English majors, to become more aware of the variety of the novel as a form of literature, of the pleasure it has to offer, and of the interpretative skills which a careful reading of novels may help to develop. Through the general recognition of novels, especially British novels, English majors may have a systematical study, which will make their study more effectively.*

1. INTRODUCTION

The main purpose of music art creation is to obtain artistic aesthetic value and social significance from it. This purpose is based on our hearing. Piano art is an auditory art that expresses human emotions. For every piano performer, extensive literary cultivation is used to conduct in-depth research and understanding of music works, and then, through reasonable playing methods, moving melodies are played, Enable both the listener and performer to experience a joyful feeling, and then generate some associations and imagination, in order to comprehend the emotions and philosophies that the composer wants to express in music, and achieve the goal of cultivating sentiment. To achieve this goal, the performer must have excellent performance skills and be able to showcase the artistic value of the work on the piano through timbre.

This article clarifies the goal of the flipped classroom and the technical support required by the normal application, expounds the connotation and characteristics of Flipped Classroom teaching mode, analyzes the teaching process of Flipped Classroom, designs the teaching micro video framework of Flipped Classroom, and constructs the implementation path of Flipped Classroom based on big data technology. On this basis, the article explains in more detail the three stages of the flipped classroom, and designs the flipped classroom teaching model from the pre-classroom, classroom and after classroom. Integrating big data technology into the flipped classroom of language majors has promoted the precise and personalized teaching of language majors, and effectively promoted the practice and application of flipped classroom of language majors.

In 2018, Chinese Ministry of Education formulated the opinions on accelerating the construction of high-level undergraduate education and comprehensively improving talent training ability, which promotes the revolution of classroom teaching and forms the Small Class Teaching, Blending Learning and Flipped Classroom, Smart Classroom, Online and Offline Teaching Mode [1]. The new teaching mode promotes the reform of classroom teaching methods in Colleges and Universities, and changes the old indoctrination teaching methods with teachers as the main body. Language majors in Colleges and Universities, especially English, Japanese, Korean, German, advocate improving the basic ability of reading, speaking, dictation and translation. The Language majors focus on the language ability itself and make full use of multimedia and network technology to carry out computer-assisted language teaching. This mode changes the single classroom teaching mode in the past [2]. However, the teaching mode of language major in Colleges and Universities is still dominated by teachers' teaching, and the student-centered language major education method has not been formed [3]. Students have a short time to learn foreign languages, and their foreign language foundation is relatively weak. It leads to great learning difficulties in classroom teaching. This will make students less excited about learning, and the awareness of autonomous learning can not be effectively established. These problems are the challenges faced by language majors teaching. The emergence of flipped classroom has brought dawn to the development of language major, and overturned the traditional universal teaching (Classroom Preparation—Classroom Teaching—Homework Assignment)[4-6]. It is a kind of teacher guidance and student subjectivity, which adopts the mode of teaching micro video independent

self-study + Classroom cooperation, exchange and discussion in the pre-classroom stage. However, the biggest impact of big data technology (artificial intelligence, Internet of things, visual data analysis) on the current teaching form is to break the closed characteristics of the original course content. A large number of open and accessible high-quality teaching resources, due to their modular, fragmented and reconfigurable characteristics, promote the teaching content from textual, linear structure to non-linear. Flipped classroom uses computer-aided technology to design teaching micro video, advances the teaching process of knowledge transfer to the pre- classroom stage, and makes teaching micro video enable students to complete autonomous learning. The internalization of knowledge is advanced to the classroom stage, and solved knowledge difficulties through discussion between teachers and students. The content quality of teaching micro video will directly affect the progress of pre-class knowledge teaching. How to effectively integrate teaching content and teaching behavior data into teaching micro video is a hot topic for many scholars. The acceptance and recognition of each student's knowledge is different, and there will also be differences in autonomous learning through teaching micro videos. This requires the effective design of teaching micro video and the integration of the big data technology into the flipped classroom of language majors. This article studies the design strategy of micro video for language teaching based on the big data technology, helps language teaching reform, and promotes the practice and application of flipped classroom for language majors.

2. UNDERSTAND THE UNIQUE TIMBRE BEAUTY OF PIANO

Piano is the most rational instrument, and various more emotional and specific sound images always come to mind when playing. Therefore, piano performers do not need anyone's help, they can create a more complete image on the piano alone. From the perspective of the principle of piano playing, the piano is a Keyboard instrument, which emits sound by letting the piano down to strike the strings. Therefore, granular sound is the characteristic and strength of the piano, and the volume and timbre of the piano can be changed with the fingers of the piano player. So it is important to train your fingers well to make them more independent and flexible, so that the sound you play will be clearer and smoother, which is also crucial for showcasing your piano skills.

Table 1: Selection of DEA efficiency measurement indicators and variable descriptions

The first order	The second order	Variables and illustration	
Input indicator	Labor input	Number of agricultural laborers (10,000)	
	Land input	Agricultural cultivation area (hectares)	
	Irrigation input Fertilizer input Pesticide input Agricultural film income Agricultural machinery input	Effective irrigated area (hectares)	
		Fertilizer application (million tons)	
		Amount of pesticide use (million tons)	
		Amount of agricultural film used (million tons)	
		Total power of agricultural machinery (kilowatt)	
Output indicat	Expected output	Gross agricultural product (billion yuan)	
	Non-desired outputs	Carbon emission	Total carbon emission of fertilizer, pesticide, agricultural film, diesel, agricultural irrigation (million tons)
		Ground pollution emission	Fertilizer nitrogen and phosphorus loss (million tons)

3. EXPLORING ARTISTIC EXPRESSION SPACE FROM WORKS

The essence of flipped classroom puts the content of courses in the classroom stage into extracurricular activities. And those things that have been done as homework in the after classroom stage are completed in the classroom stage [7]. Flipped classroom subverts the "duck feeding" mode of teaching by teachers and students as audience in universal teaching, and realizes the flipping from teachers' classroom teaching to students' autonomous learning in the pre-classroom stage. Taking teaching micro video as the main learning channel has broken the previous

passive learning state of students. It enables students to carry out autonomous learning, provides students with a relaxed learning atmosphere, and improves students' dominant position. Then this method could change students' learning habits and interests, and promote the reform of teachers' teaching thinking and teaching methods.

The basic theory of flipped classroom is constructivism theory, which guides students to learn new knowledge with their existing ability and discusses the difficulties with teachers and students to form a new knowledge structure. Based on this theory, teachers and students need to reverse their previous roles. It can make students become the drivers of knowledge transfer, and make teachers become the guides of knowledge transfer. The content of learning activities can be used to drive the implementation of phase tasks. In the pre-classroom stage, teachers design teaching micro videos according to teaching objectives, teaching contents and teaching behavior data, and delimit the scope of students' study. This method can make students think independently about the problem and deepen their understanding. The fundamental purpose of flipped classroom is to guide students' learning process from shallow knowledge to deep knowledge, change the previous indoctrination "teaching" and rote "learning", and build a constructive learning process for "deep learning".

3.1 Analyze the music background

If we want to successfully play a musical work and perfectly express its content, we need to have a profound understanding of the work. Firstly, it is necessary to understand the musical background of a piece of music, and the following points should be specifically analyzed: understanding the creative background of the work. A piece of music always expresses the composer's feelings towards the real life of a certain era; Understand the ethnic characteristics of the work. Most music works are deeply rooted in national Folk music, so they have strong national characteristics; Understand the genre characteristics of the work. Different schools have different styles and flavors.

3.2 Study the spectrum, analyze the melody, and understand the direction of the melody sentence by sentence

Analysis must definitely rely on music scores. Although feelings are subjective, they also have peripherals. Based on the analysis of music scores within a certain range, the listening experience is closely related. Therefore, the first step in analyzing a work is to find a score. After finding the score, the test is the author's ability to read the score, and it is necessary to study the score in great detail. Once when Shen Xuan was analyzing the Finnish composer Sibelius's "The Swan of Toonella", she saw a request mark on the score of the big drum. After consulting some books, she still couldn't understand it. After asking her colleagues who taught percussion music, she learned that it was a request for the performer to hit the big drum with the hammer of the Timpani drum. She immediately thought of the intention of such a request: "Because this work is mainly about death, it should be very boring, and the Timpani, which is very heavy and firm, should not be used, so there is such a request. If you do not read the score or read here without paying attention, you will not see the mark, and you will not think of this point."

3.3 Use your imagination to create a story for your work

There is a certain relationship between the quality of musical sense and talent, but more importantly, we need to use our own lives to supplement, listen and see more, constantly expand our knowledge, and also enrich our imagination. When playing the scale, we can add our own thoughts and feelings. For example, every time I play 'Butterfly Lovers', it feels like all the cells in my body are undulating with the melody, as if this poignant love story appears in front of me like a movie. The melody is mournful, but the heart is sorrowful.

4. PERFORMANCE SKILLS OF PIANO SOUND ART

Information technology is not only an important grasp and supporting force for the smooth development of flipped classroom, but also the material basis for the operation of flipped classroom. The flipped classroom teaching model has been continuously developed with the support of information technology and the Internet, which breaks the limitations of previous experience imitation teaching and extends the knowledge transfer in conventional teaching to the completion in the pre-classroom stage. Teachers use information technology to produce rich teaching micro videos of teaching content, optimize the learning environment, change the previous single text and graphic presentation, enhance the attractiveness of teaching content, and help students learn independently. Students use information technology to make interactive micro videos or slides of difficulties and knowledge cognition encountered in the process of self-study, and interact with teachers and students in the classroom stage to improve

the acceptance of knowledge teaching.

The media of flipped classroom teaching mode relies on multimedia networks, mobile devices. Learning methods rely on micro courses, curtain courses, makers, small-scale restricted online courses. Learning materials are composed of multi-modal data information (such as text, pictures, video, audio). The collection of learning materials will affect the development of flipped classroom in the pre-classroom stage. Students with different learning abilities will have different acceptance of the content of teaching micro video. Teachers need to build a multi- source data collection platform integrating online and offline in the pre-classroom stage to collect each student's teaching behavior data, including learning data, evaluation data, psychological data, physiological data. In order to make the teaching behavior data complete, the multi terminals are used to collect the whole chain data of each student (pre-classroom stage, classroom stage and after classroom stage). Through the preprocessing (such as cleaning, classification) of these data, the learning state changes of students can be analyzed, and the relationship between group characteristics and individuality is explored. It uses information technology (artificial intelligence, big data) to model teaching behavior data, finds the mapping between data and eigenvalues, builds each student's user portrait, designs each student's teaching micro video based on this result, and produces accurate and personalized teaching micro video. It can accurately push teaching micro videos to students at different levels of ability, which enables students to refine their self-learning and teaching micro videos in the pre-classroom stage.

4.1 The correct touch method is a necessary guarantee for obtaining sound quality

What part of the finger should be used to touch the keys when playing the piano? In the midst of ever-changing music, touch the keys with your fingers. The position is not a fixed and unchanging point, and there will be a certain range of movement. But in basic skill training, the basic principle should be: when the player places the correct hand shape on the keyboard, the part where the fingers come into contact with the keys should be the part where the keys are touched. Generally speaking, this area, located at the 2, 3, and 4 fingers, is the junction between the belly of the finger and the tip of the finger. At this point, the first and second segments of the fingers (not the joints from the fingertips) form an oblique angle with the key surface (forming a right angle means that the top of the finger touches the key). In the little finger, it should lean towards the outside, while in the big finger, it is from the outside of the first segment (not the joint) from the fingertip.

4.2 The movements and intensity of the performer

The rationality and scientificity of the performer's movements and dynamics determine the overall sense of force and sound effect of the piece being played. The acquisition of good timbre is directly related to the condition of the arm's moving parts when touching the key. Different parts of the body under different conditions produce different tones. The relaxation, flexibility, enthusiasm, elasticity and explosive force of the palm joint, wrist joint, elbow joint and even the Shoulder joint are crucial when touching keys, and are the basic premise for producing good voice. The palm, as the support point for strength, is a key part to ensure sound quality. The supportive palm is directly related to the effectiveness of the first joint movement of the fingertip and the state of power transfer between sounds; The wrist is the connecting link between the fingers and the arm, and it is the necessary passage for the large arm to transmit power to the fingertips. The wrist must be firm and elastic; The elbow plays a crucial mediating role throughout the entire playing process. The flexibility, lightness, and ease of adjustment of the elbow have a great impact on the elasticity of sound, the coherence of phrases, and the transmission of power; The role of the large arm should be throughout the performance, as it is both a powerful source of power and an important one.

4.3 The use of pedals

The Russian pianist Anton Rubinstein said a famous saying: "The pedal is the soul of the piano". The correct and appropriate use of pedals will play a positive role in expressing the meaning of music, making it more vibrant, vibrant, radiant, and touching. The right pedal is the Sustain pedal. Once you step on it, all the brakes in the piano will be opened, and all the played notes will be extended. As soon as the foot is lifted, the damper presses against the strings again, and the extension of the sound stops. The left pedal is a weak tone pedal. On a typical household upright piano, when the left pedal is pressed, the hammer moves forward slightly, reducing the distance from the strings and weakening the sound accordingly. The middle pedal is most commonly referred to as the extended sound pedal.

4.4 Play the movements

Regarding the posture of playing the piano, Piano master Fu Cong once said: When playing the piano, the expression should be in the music, not on the face or body. However, people are always human, and their hearts have feelings, which inevitably appear outside. It is uncontrollable and often not beautiful, just like singing poetry and dancing is not beautiful. I cannot use music to catch people, but rather to make people pay attention to my playing posture, which can only prove that my performance is not at home. There is also a part of the audience, "the audience, Intentionally treating me as an actor, they don't understand that in pursuit of a certain sound effect, there is a certain posture. Everyone must understand that in piano performance, the body serves the music. This paper selects plantation as the main research direction, combines the research results of Pan Dan[2] (2013), Wang Baoyi[3] (2016) and others, and divides the input indicators into land input, labor input and other capital input according to the availability and practicality of data, and other capital input includes fertilizer input, pesticide input, agricultural film input and agricultural machinery force input; divides the output results into desired output and non- desired output, and the desired output is represented by the gross agricultural product, while the non-desired output mainly calculates the carbon emission and ground pollution brought by agricultural production.

5. CONCLUSION

The artistic expression in performance requires us to pay attention to the performance skills while playing, and we must have a great love for piano performance, so that we can integrate our life experience into the music, and continuously practice piano performance, improve our aesthetic ability, and integrate technology and music expression. Under the background of new liberal arts, "Public Policy Analysis" focuses on the cultivation of students' practical ability. Through practical operations such as case analysis and simulation exercises, students can apply theoretical knowledge to practical problems and improve their ability to solve problems. At the same time, students are encouraged to have diverse ways of thinking, and students' critical thinking and innovative thinking are cultivated to deal with complex and diverse public policy issues. In addition, more attention should be paid to the capacity building of data analysis. Students need to learn to collect, organize and analyze relevant data in order to better evaluate the effect and impact of policies and improve the scientificity and accuracy of decision-making. In order to enable students to actually contact and participate in the process of public policy formulation and implementation, the course of "Public Policy Analysis" should establish a practical platform, such as combining with the government, social organizations or field trips, so that students can personally experience and experience the formulation of public policies and implementation process. Under the background of the new liberal arts, the goal of the "Public Policy Analysis" course is to cultivate students' comprehensive abilities, including analytical ability, communication ability, and teamwork ability. Through group discussions, project research and other forms, students are allowed to develop and improve these comprehensive abilities in practical operations. In general, the conclusions of the teaching reform and practice of the "Public Policy Analysis" course under the background of the new liberal arts are: emphasizing practicality, cultivating multiple thinking, strengthening data analysis, establishing a practical platform and enhancing comprehensive ability. These reforms are designed to enable students to better deal with complex public policy issues and improve their problem-solving skills and level.

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