

# *Importance of Thinking Ability in Piano Teaching in Normal Universities*

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**Abstract:** With the continuous promotion of quality education in China, the problems existing in piano performance teaching are becoming more and more prominent. How to reasonably solve the problems existing in piano performance teaching to meet the training objectives of piano professionals in normal universities is an urgent need for us to think and study. This paper makes a profound analysis of the importance of thinking in piano teaching from the perspective of Bloom's cognitive theory, in order to explain the key role of thinking ability in piano theoretical learning and practical performance. By strengthening the cultivation of thinking ability in piano teaching, paying attention to constantly improving the piano performance teaching mode and updating the teaching concept, we can not only cultivate students' music literacy, improve students' appreciation level and ability, promote the development of piano performance education system in normal universities, and cultivate high-quality music talents.

## 1. Introduction

Confucius in the Spring and Autumn period once said, "Learning without thinking leads to confusion." It means that if you only study and don't think about problems, you will be confused and ignorant and have no harvest. Piano playing is an inner creative process of careful thinking, not a mechanical operation of rote memorization. If people keep numb memory in learning without independent thinking, they will not obtain real knowledge. Piano performance is closely related to learning and thinking ability. The improvement of learning and thinking ability is often accompanied by the breakthrough of piano performance level. The research on learning thinking can not only improve the performance level of piano, but also improve and develop the piano education system.

## 2. Importance of Thinking Ability in Piano Teaching in Normal Universities

Modern science holds that thinking is the indirect reflection of objective things in the human brain. Through thinking, people can understand the essence and internal logic of everything. In other words, thinking is an advanced form of cognition. Human thinking is based on sensibility, with language as the shell and with the help of language tools. When students learn piano, they will improve their perceptual knowledge to their ability to solve problems rationally, go deep into the essence of piano performance, understand its internal logical relationship, form their own ideas

through independent thinking, and be able to think dialectically, constantly deepen their understanding and achieve real understanding.

Piano performance is very complex and requires careful thinking. The performance process is actually the player's understanding and re creation of art <sup>[1]</sup>. Whether the mastery of playing skills is firm and skillful is showed when playing piano. At the same time, it reflects the performer's thinking ability throughout the whole process. To improve the piano performance effect, improving the thinking ability is the top priority.

### **3. Function and Analysis of Piano Playing Thinking Ability under Bloom's Cognitive Goal Theory**

Thinking ability is the core of learning ability. The improvement of learning ability will produce twice the result with half the effort when learning piano performance. According to Bloom's cognitive goal classification theory, the thinking ability is summarized into six parts: knowledge, understanding, application, analysis, synthesis and evaluation <sup>[2]</sup>. According to the characteristics of the learning process, it is divided into three stages to elaborate and analyze the characteristics of each stage.

#### **3.1 Process of "Knowledge" and "Understanding"**

Although the process of "knowledge" and "understanding" requires low thinking ability, it plays a vital role in piano performance. It is like the foundation of building a high-rise building. Students' stability of basic knowledge and skills of performance can lay a good foundation for higher cognitive processes by recognizing and reciting scores to accumulate repertoires.

At this stage, piano players should learn theories in "cramming" mode and absorb a large amount of theoretical knowledge to lay a good foundation. The theoretical knowledge of piano performance is divided into technical method theory and art theory <sup>[3]</sup>. The theory of technical method can be regarded as the study of music score. Music score recognition is the underlying structure of music, which is characterized by rapid progress but easy to make mistakes. The technical aspect is the coordination of fingering, hand shape, wrist and arm in the process of playing, and whether the playing action is reasonable and smooth. Learning method means that scientific learning method can escort piano learning, increase learning efficiency, improve independent thinking, reduce forgetting, etc. The ideas of music, the development process of music and the stories of pianists in art theory all reflect the abstract thinking ability of piano learners in the stage of "knowledge" and "understanding".

After learning certain theoretical knowledge, piano players continue to learn repertoires and perform training, initially have the ability to feel music, gradually improve the ability to appreciate music, further interpret music scores in performance, and lay a foundation for learning in the next thinking stage.

In the process of piano practice, good piano practice methods can greatly improve the efficiency of piano practice. Players think rationally about the difficulties in the performance process, constantly correct the techniques through the feedback of sound during performance, and reasonably arrange the rhythm of piano practice, so that the efficiency of piano practice will be improved. To continuously develop their own piano practice methods, cultivating their thinking ability is the key. If there is a lack of guidance on thinking ability in piano learning, the repeated performance of players with mechanical numbness, including errors in repeated performance, can't form effective feedback, can't correct problems in time, and is very inefficient.

### 3.2 Process of “Application” and “Analysis”

“Application” and “analysis” are the second stage of thinking ability, the stage of spectrum analysis and performance application. After completing the first stage, the performer learns and recreates independently. This process tests the performer’s thinking ability and is also a watershed for the level of piano performance.

At this stage, players should not only have solid performance technology and rich theoretical knowledge, but also use music theory, harmony and other music knowledge to analyze and summarize on the basis of the two. When playing, players think rationally about the sound of playing, constantly form their own understanding, and interpret the works from different angles. Players should also study the performance characteristics of the same work in different historical periods, have a certain understanding of the composer’s style, and interpret the composer’s creative core to the greatest extent through the analysis of the performance of a work by different performers and different periods.

#### 3.2.1 Thinking and Understanding of Life Boost Piano Performance

Piano thinking is the link between life and performance. Art comes from life, but it is higher than life. The secondary creation of works requires rich imagination and inspiration, but the foundation of artistic works is life. No matter how rich your imagination is, leaving life is like an attic in the air. Tchaikovsky’s *Four Seasons* is a classic work reflecting the life of Russians. Understanding the composer’s life experience at the time of creation, combined with his own life experience, can lead the audience into a beautiful scene in which the people are immersed in a happy life. The deeper the insight and understanding of life, the better the summary with piano thinking, and the more successful the performance will be.

#### 3.2.2 Use Image Thinking to Stimulate Music Creativity

It is of great significance to use image thinking to assist teaching and improve students’ learning ability and innovation ability. Image thinking is an important way to realize the creativity of piano majors in normal universities. When playing works, people need to learn a lot and create rich ways and methods of music performance. Their own subjective experience and aesthetic standards will change and create music works to a certain extent, fundamentally speaking, the perception and understanding mode of image thinking is the key to performance and innovation, and people’s image thinking ability is closely related to the performance level. The function of image thinking is not only to increase people’s imagination, but also to enhance people’s creativity.

#### 3.2.3 Enhance Musical Imagination with Musical Sense

The sense of music is the perception of music, which is specifically reflected in the perception of elements such as music melody, strength and timbre. On the other hand, music affects people’s emotions and other reactions. The change of music makes people’s heart respond and produce emotional experience, so as to realize the organic combination of musical elements and emotions. The cultivation of musical sense is that all organs participate in the ear to feel external music, and simulating internal music in the heart is also an important part of musical sense. When a performer starts to play a new work, he must first understand the composer and creative background of the music work, and then understand the rhythm, high sound characteristics and difficulties in the performance process. Then simulate the performance process in the heart, open the internal sound and carry out external practice at the same time. The way of internal and external integration can more accurately grasp the music rhythm and details, and master the essence of the work faster, so as

to achieve efficient and perfect performance effect.

### **3.2.4 Skillfully Set up Scenes to Induce Thinking**

The manufacturing of scenes can be centered on learning environment and role respectively. In the way of role exchange, put yourself in the role of piano performance instructor, which can better understand the practice of the instructor, so as to stimulate learning interest and passion, and take the initiative to think and explore from the high position of the instructor. The composer's life, characteristics and creative background can play an independent learning role without the guidance and help of the instructor, increase the ability of independent thinking, better and more actively overcome the difficult problems in performance. The teaching of piano major in normal universities can start from the learning environment scene, bring the performer to the concert hall for performance, and rehearse and ask the students according to professional standards. Whether it is the careful excavation of the performance details, the promotion of their high requirements for professional level, and even the familiarity with professional venues to reduce stage fright and shape a better performance mentality, will benefit the players infinitely. Skillfully set scenes can even let the performer play the composer, completely immerse himself in the background and story of the composer's composition, have a deeper understanding of the works and resonate with the author's heart, so as to produce a better performance of the works, easier to resonate with the audience.

### **3.3 Process of “Synthesis” and “Evaluation”**

As the highest level of cognitive objectives, “synthesis” and “evaluation” are innovation and free play based on the upper level. They are the profound cognition of rational thinking and accurate judgment under independent thinking. Based on the rich music imagination in the heart and the music understanding accumulated for a long time, the performer interprets the connotation and beauty of music purposefully from different angles and in different ways.

#### **3.3.1 Flash of Inspiration, Progress and Complacency**

Inspiration particularly loves people who are happy and peaceful, and has the characteristics of sudden and flash. The generation of inspiration often requires people to explore something for a long time, and also depends on the researchers' huge knowledge reserve. Newton's apple is a household name. Archimedes found Archimedes' principle from the water overflowing from the bathtub. When playing the piano, if the player is familiar with the sound principle of piano playing, has various skilled playing skills, knows the huge music history in his heart, and has different levels and angles of understanding, he generates inspiration by chance, perfectly interprets the work and even surpasses it in the performance.

#### **3.3.2 Critical Thinking and Continuous Innovation**

Critical thinking in the field of piano performance is also an excellent thinking quality. The players' thinking of analysis, induction and speculation in the process of learning and playing are the manifestations of critical thinking, which is applied to the teaching of piano major in normal universities. Susan Langer, an American semiotic aesthetician, once said that what created by artists are emotions, but these emotions are different from the simple emotions generated by children, but truly presents those unspeakable and difficult to reflect reality to everyone. This way is the process of objectification in the subjective field. Therefore, piano performance is by no means a simple emotional catharsis, but a process in which players skillfully master the relationship between music

and human emotion through continuous learning, profound rational thinking and critical thinking, and can interpret all kinds of emotions with all kinds of music at will.

The six processes of learning thinking are not always the same from top to bottom. Each process has similar characteristics and is constantly changing and cyclic. The thinking of the upper and lower levels will affect each other. The learning process of the lower level thinking may touch the upper level thinking and change. At the same time, the upper level learning thinking may also have a guiding role or unexpected impact on the lower level learning thinking.

## **4. Thinking Plays an Important Role in the Science and Perfection of Piano Education System in Normal Universities**

### **4.1 Thinking Provides Theoretical Support for Piano Teaching**

Education is inseparable from the guidance of theory. Theoretical knowledge is the bottom building of education, which is the same in piano education in normal universities<sup>[4]</sup>. Theoretical knowledge often takes books as the shell and thinking as the core. Performance techniques and music expression can be expressed in a theoretical way only after being refined by abstract rational thinking<sup>[5]</sup>. Both the theoretical knowledge of performance techniques and the artistic theoretical knowledge that needs abstract thinking (artistic thought and piano development history) are inseparable from thinking to promote the formation of theoretical knowledge.

### **4.2 Thinking Promotes the Development of Piano Education System**

The exploration of piano education belongs to the category of scientific research. To establish the ideas and objectives of piano teaching, the teaching contents, educational methods, as well as the detailed class hour allocation, we must carry out strict logical thinking and continuous reasoning and summary before we can finally finalize it. Moreover, the modern education that keeps pace with the times requires piano education to take performance method and artistic view as the pillar to achieve the all-round development of quality education. This educational model is a scientific teaching system that has been studied by many parties. It is not a simple mechanical learning and memory and shallow experience. In order to cultivate high-quality innovative talents of piano major in normal universities, this innovative teaching system must be adopted. Only such a teaching mode can make students have solid foundation and innovative ability. Therefore, the continuous development of piano education system is inseparable from the guidance of thinking.

## **5. Conclusion**

Piano learning and performance are inseparable from the support of thinking ability from beginning to end. When performing, the performer constantly makes use of the summary and reflection of thinking ability to better interpret the works and make the piano performance more infectious. Through the seamless processing of three-level thinking, piano learning can increase the interest of learning, enable students to efficiently complete learning tasks, increase their independent exploration ability, enrich learning experience, help students quickly break through the bottleneck period and make continuous progress. Adopting this innovative teaching mode and combining scientific learning concepts with piano performance teaching can better cultivate high-quality innovative talents of piano major in normal universities.

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