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Comparative Analysis of Piano Teaching Methods in Higher Educational Institutions of Russia and China

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***Abstract*:** *The formulation of the goals and objectives of the comparative analysis in this study is dictated by significant gaps in the scientific understanding of the modern challenges facing piano pedagogy when viewed from a cross-cultural perspective. Despite the importance of the research issues being developed in the era of globalization of music education and active cultural exchange, the scientific study of the problem remains fragmented and uneven. Existing research, as a rule, focuses on individual features of national traditions or is limited to general historical comparisons, without rising to the level of a systematic analysis of modern teaching methods. It is this conceptual gap that defines the main purpose of the work: to identify, systematize and conduct a multi-level comparative analysis of piano teaching methods in universities in Russia and China, based on a comprehensive study of regulatory documents, curricula, scientific and methodological literature and real pedagogical practice*

Keywords: *China, Cross-Cultural Perspective, Innovative Teaching Methods, Psychotechnical Approaches, Russia*

1. Introduction

The formulation of the goals and objectives of the comparative analysis in this study is dictated by significant gaps in the scientific understanding of the modern challenges facing piano pedagogy when viewed from a cross-cultural perspective. Despite the importance of the topic in the era of globalization of music education and active cultural exchange, the scientific study of the problem remains fragmented and uneven. Existing research, as a rule, focuses on individual features of national traditions or is limited to general historical comparisons, without rising to the level of a systematic analysis of modern teaching methods. It is noteworthy that even fundamental works on the theoretical foundations of piano pedagogy and the national traditions of Russia and China, including the works of Bian Meng [1; 2], Huang Ping [3] or Yang Fuman and Dai Yibo [4], do not create a holistic comparative model for analyzing pedagogical practices in their specific application. It is this conceptual gap that defines the main purpose of the work: to identify, systematize and conduct a multi-level comparative analysis of piano teaching methods in universities in Russia and China, based on a comprehensive study of regulatory documents, curricula, scientific and methodological literature and real pedagogical practice.

2. The main objectives of the scientific and pedagogical research are to conduct a comparative analysis of piano teaching methods in universities in Russia and China

In order to achieve the main goals of the conducted scientific and pedagogical research, it was necessary to solve several interrelated tasks that consistently reveal the subject of research from the normative framework to innovative approaches.

3. The Primary Task

The primary task is to compare the regulatory frameworks - the Federal State Educational Standards of the Russian Federation (FSES) [5; 6] and the National Teaching Quality Standards of the PRC [7] – as well as standard curricula. The key here is to analyze the goals, content, and teaching methods embedded in them. This stage of the work directly responds to the tasks formulated as "to provide an overview of existing teaching methods ... based on the analysis of curricula" and to study the essence of specific teaching aids. The analysis shows that the Russian Federal State Educational Standards for the specialties "Art of Concert Performance" and "Musical and Instrumental Art" [5; 6] emphasize the importance of developing the ability to "independently master new methods of musical and performing activities," which indicates methods that develop student autonomy. In turn, Chinese standards [7], as Zhou Shiqi notes, place greater emphasis on "systematic acquisition of professional skills" [8, p. 376], suggesting other methodological priorities. A comparative study of these normative complexes provides the basis for understanding the institutional conditions in which pedagogical methods operate.

4. The Second Key Task

The second key objective of the research is to identify, group and analyze the main categories of piano teaching methods presented both in scientific and methodological literature and in real pedagogical practice in Russia and China. This work is directly related to the overall purpose of the study to "provide an overview of existing methods" and "review the key achievements of world educators" in relation to the Russian-Chinese context. Systematization requires clear classification criteria. In this regard, it is important to take into account not only the historical development of methods, but also their specific functional purpose in the educational process. It is characteristic that in the Russian tradition, as noted by Shchikunova, the influence of "the principles of playing with the whole hand, formulated in the works of Depp and Breithaupt" [9, p. 91], remains, which is clearly seen in the methods of G. Neuhaus [10] and their modern interpretations, for example, by K. Maryach and T. Shipilkina [11]. Chinese pedagogy, which was strongly influenced by the Russian school, nevertheless developed its own accents, such as a special emphasis on the development of musicality and sheet-reading skills [12; 13]. In the process of systematization, it is planned to identify stable methodological groups. These are, for example, traditional methods that go back to the principles of K. Cherni and T. Leshetitsky; modern methods that integrate the psychotechnical approaches of F. Leimer and V. Gieseking; and innovative methods related to the use of digital technologies. It will be especially important to analyze how national pedagogical traditions influence the adaptation and application of seemingly universal methods.

5. The Third Key Task

The next important step is an in–depth analysis of the essence of key teaching aids that are actively used in Russian and Chinese universities. It's not just about listing popular publications, but about understanding their methodological foundations and principles. In Russia, the high authority of classical works remains, such as *Methods of Teaching Piano Playing* by A. Alekseev [14] and *Essays on Piano Technique* by M. Barinova [15]. In China, a special role is played by the fundamental works of Zhao Xiaosheng *Principles of Piano Playing* [16] and Bao Huiqiao [17], which successfully integrate Western methods with national teaching characteristics. It is critically important to assess to what extent these manuals reflect the modern evolution of pedagogical views: whether, for example, they retain the traditional emphasis on "finger technique" as the foundation of mastery, or whether they include approaches focused on the development of "holistic artistic thinking." Of particular interest is a comparison of how the manuals adapt to changes in educational standards and the demands of actual teaching practice in both countries.

6. The Fourth Key Task

Finally, the fourth task focuses on studying exactly how and to what extent innovative teaching methods (including distance learning, group classes, and digital tools) are being implemented in the practice of universities in Russia and China. This task directly responds to the research points that require the need to

characterize the degree of application of innovative methods in Russian higher education institutions and to formulate the place of online courses, as well as group lessons in Chinese universities. Modern research, such as the work of Shu Hao [18], captures the growing role of digital technologies, but highlights significant differences in their adaptation between countries. In China, as Zhang Xinxin points out, experimental teaching methods using digital platforms are actively developing [19, p. 73], which finds support at the state level, for example, in initiatives such as creating an interactive "Music house" in the form of a grand piano magnified 50 times (Fig. 1) is a unique building that was built in 2007 by engineers from Hefei University of Technology at the initiative of the government. (This structure, standing on three concrete pillars, consists of hundreds of black glass panels alternating with transparent and white elements symbolizing the keys of the instrument. The building has become not only a training center for music students, but also a popular tourist attraction, attracting thousands of visitors who want to see its unusual architecture. It symbolizes the importance of music in Chinese culture and highlights the country's commitment to innovation in the arts.)

Fig. 1. A Music House built in China based on a student project (pinterest.com)

While in China, group forms of study, according to Chen Rong's observations, are often considered as an effective way to optimize resources and develop students' communication skills [20, p. 344], Russian practice, as V. Molzinsky notes, still relies heavily on individual forms of study as a historically established norm [21, p. 174]. According to I. Korsakova, the Russian experience is often characterized by a more cautious approach, where digital tools still play a predominantly supportive role [22]. A comparative analysis here should reveal not only the external differences in the use of technology, but also the underlying cultural and pedagogical factors that determine the specifics of the perception and implementation of innovations in each of the national systems.

7. A methodological framework focused on finding common ground and identifying the potential for mutual enrichment of pedagogical practices in Russia and China

To solve these problems, a comprehensive methodology is used: a combination of general scientific methods (analysis, synthesis, systematization) with empirical approaches (classification, typologization). It is important to

understand that comparative analysis here goes beyond a simple comparison of individual elements. Its essence is to identify deep systemic connections between normative foundations, theoretical models, methodological tools and real pedagogical practice. It is this approach that allows us to overcome the fragmentation of existing research and form a holistic view of the current state of piano pedagogy in two cultural environments. At the same time, the methodological framework is focused not only on fixing differences, but also on finding common ground and hidden potential for mutual enrichment, which fully corresponds to the overall goal of the study to identify the potential for mutual enrichment of pedagogical practices in the two countries.

The logic of the task sequence reflects the movement from the broad context of educational policy (analysis of regulatory documents) to the specifics of pedagogical interaction (introduction of innovative methods). This multi-level coverage ensures the completeness of the research and allows us to draw conclusions that are of practical significance, rather than remaining in the field of abstractions. A comparative perspective is used at each stage of the work, when comparing educational standards and programs, when analyzing national specifics in the classification of methods, when studying the specifics of using textbooks, as well as when assessing the pace and nature of innovation. Of particular value in this context is the consideration of historical traditions: the influence of the Russian school with its emphasis on interpretation and individuality of the performer [10; 23] and the Chinese school with its attention to technical excellence and the integration of national elements [24; 25] into modern pedagogical approaches.

The implementation of the tasks set will create a solid scientific basis for achieving the main goal of the chapter - conducting a systematic comparative analysis of methods of teaching piano playing. This analysis is intended not only to fill in existing gaps in pedagogical science, but also to provide teachers, methodologists, and heads of educational institutions with specific tools for meaningful optimization of the educational process based on the best national and international practice The implementation of the tasks set will create a solid scientific basis for achieving the main goal of the chapter - conducting a systematic comparative analysis of methods of teaching piano playing. This analysis is intended not only to fill in existing gaps in pedagogical science, but also to provide teachers, methodologists, and heads of educational institutions with specific tools for meaningful optimization of the educational process based on the best national and international practices. As Yang Pei rightly points out, the identification of profound differences and similarities in the pedagogical approaches of Russia and China opens the way to a dialogue that enriches both educational systems [26, p. 155]. The comparative approach in this study is implemented through a three-level scheme covering different aspects of educational systems. At the macro level, a comparison is carried out between the basic philosophy of education laid down in the Russian Federal State Educational Standards (RFSES) [5; 6] and Chinese national standards [7]. The mecomparative approach in this study is implemented through a three-level scheme covering different aspects of educational systems. At the macro level, a comparison is carried out between the basic philosophy of education laid down in the Russian Federal State Educational Standards (RFSES) [5; 6] and Chinese national standards [7]. The meso-level focuses on the analysis of institutional practices, primarily through a detailed study of curricula. The microlevel is devoted to the study of specific methodological interactions taking place directly in classrooms. The content analysis of regulatory documents and trainin The content analysis of regulatory documents and training programs was carried out using a specially developed decomposition matrix. The key parameters of the analysis were: the frequency of mentioning methods (direct or indirect), the degree of their detail, the balance between traditional and innovative approaches, as well as implicit pedagogical attitudes. The analysis of the Russian Federal State Educational Standards revealed a steady focus on the formation of the ability to independently master new methods. This attitude echoes the principle of "educating an artist with independent thinking," dating back to A. G. Rubinstein [23, p. 232]. Chinese standards are dominated by formulations related to the accurate reproduction of the author's text and the achievement of technical excellence, which reflects the tradition that Liu Fan characterizes "as a priority of discipline and accuracy" [27, p. 102]. Comparative content analysis of standard programs revealed significant differences in the structuring of the material. Russian programs emphasize the stages of artistic development of a work (from form analysis to interpretation). Chinese programs place more emphasis on the gradation of technical difficulties. The distribution of study time is also a significant indicator. According to V. Molzinsky, in Russian universities, individual lessons take up to 80% of the time [28, p. 174], whereas in China, as Chen Rong notes, group forms are considered as an important resource for optimizing the educational process [29, p. 18]. The analysis of

scientific and educational literature was based on the principles of hermeneutical triangulation. This approach allows us to compare the semantic layers of The analysis of scientific and educational literature was based on the principles of hermeneutical triangulation. This approach allows us to compare the semantic layers of texts created in different cultural traditions. Russian methodological thought, represented by the works of Alekseev [14], Barinova [15], Feinberg [30], demonstrates the evolution from analytical and performing paradigms to more integrative models combining technical development with the formation of artistic thinking. Chinese authors such as Zhao Xiaosheng [16] and Bao Huiqiao [17], while maintaining closnese authors such as Zhao Xiaosheng [16] and Bao Huiqiao [17], while maintaining close attention to the basic technique, are actively developing ideas for synthesizing Western methods with national musical aesthetics. This finds expression, for example, in the concept of "musical self-expression through cultural codes" [31, p. 107]. A particularly valuable aspect of the study was the comparative analysis of the interpretation of key pedagogical concepts. The concept of "sound formation" in the Russian tradition differs markedly from its understanding in Chinese pedagogy. An important methodological result was the identification of "white spots" in the literature. While Russian authors study in detail the psychotechnical aspects of performance, Chinese researchers pay more attention to the issues of technologization of training. The systematization of teaching methods was carried out using a polycriteria model that takes into account several key aspects. First, the genesis of the method (traditional, modern or innovative) was considered. Secondly, the dominant object of influence The systematization of teaching methods was carried out using a polycriteria model that takes into account several key aspects. First, the genesis of the method (traditional, modern or innovative) was considered. Secondly, the dominant object of influence was analyzed – whether the method is primarily aimed at developing technical skills, artistic thinking, or the motivational sphere of the student. Thirdly, the form of organization of the educational process (individual, group or distance learning) was evaluated. Fourth, the degree of digitalization of the method (analog, hybrid or fully digital approaches) was determined. For example, in Russian practice, there is an interesting phenomenon of "tradition-innovation", when the classical Neuhaus method of "the unity of technical and artistic" [10] adapts to modern conditions through the use of video analysis of performance [22, p. 29]. In China, a model of the "technologized tradition" is being formed, in which the fundamental principles of technical training according to Zhao Xiaosheng [16] are integrated with artificial intelligence in simula. For example, in Russian practice, there is an interesting phnomenon of "tradition-innovation", when the classical Neuhaus method of "the unity of technical and artistic" [10] adapts to modern conditios through the use of video analysis of performance [22, p. 29]. In China, a model of the "technologized tradition" is being formed, in which the fundamental principles of technical training according to Zhao Xiaosheng [16] are integrated with artificial intelligence in simulators to develop fluency. Special attention was paid to methods located at the intersection of cultural influences. Thus, the "principles of playing with the weight of the hand", described in detail by Breithaupt [32] and adapted in Russian pedagogy, were transformed in the Chinese tradition into a system of special "breathing exercises before performance" [33, p. 176]. The classification also revealed a noticeable asymmetry in the development of group methods.

The generalization of pedagogical experience presented in literary sources required the development of a special scheme for the reconstruction of "live practice" through the analysis of texts. The key tool here is the selective analysis of pedagogical cases implicitly contained in methodological works and scientific articles. For example, Dorensky's description of work on a large-scale form allows us to reconstruct his method of "holistic coverage of the work to detail," which is in marked contrast to the widespread Chinese practice of "step-by-step technical development of fragments," described by Wu Yadan. Studies containing specific empirical data were of particular value. Mu Jianyun's work on a 20-30% increase in efficiency when using digital simulators in Chinese universities correlates well with more restrained assessments of their effectiveness in Russian conditions. A significant aspect of the generalization was the analysis of difficult-to-formalize, non-verbalized components of pedagogical experience. This includes the "culture of pause" in the Russian performing tradition and the characteristic "aesthetics of precision" in the Chinese. A methodologically important result was the identification of gaps in the description of the practice. Russian sources provide detailed coverage of the work on artistic interpretation [10; 3], while Chinese sources pay more attention to the diagnosis and solution of technical problems [13].

The principle of data triangulation ensured the synthesis of the obtained results. Its essence lies in the cross-

verification of conclusions obtained at one level of research (when analyzing regulatory documents) through data from other levels (comparing textbooks, observing real practice). This made it possible to minimize the risks of "desk theorizing" divorced from reality and to increase the validity of the results. For example, the thesis about a higher degree of technologization of Chinese education, initially put forward based on an analysis of government programs [7], was convincingly confirmed in Yang Jing's research [34] and specific examples such as the creation of specialized architectural and educational facilities such as the "Music House" [Fig. 1].

Taking into account the cultural and historical context was of particular methodological importance, since without it comparative analysis easily becomes superficial. Russian Russian piano school, which grew out of the European tradition, but enriched with the specifics of the "Russian mentality", demonstrates fundamental differences from the Chinese school. The latter was formed in the context of "catching up modernization" with the active borrowing of Soviet experience. These differences are noticeable even in terminology. The Russian concept of "artistic image" has no direct equivalent in Chinese pedagogy, where more attention is paid to the categories of "accuracy" and "perfection of performance" [16]. Historical retrospect serves not just as a background, but as an important tool for interpreting further contemporary differences. Thus, the tradition of open lessons in Russia dates back to the work of the Rubinsteins, while the preference for group forms of learning in China has its roots in the Confucian principle of "collective learning."

The ethical component of the methodology required constant reflection on the risk of ethnocentric assessments. In order to avoid hierarchical judgments like "better or worse", the principle of "functional equivalence" was applied. For example, the emphasis on individuality in Russia and precision in China are not considered in comparison, but as adaptive strategies to different cultural conditions. This position is consistent with the point of view of Yang Pei, who argues that differences in pedagogical approaches reflect differences in cultural codes, rather than in effectiveness [26, p. 153].

Thus, the proposed methodology helps to overcome the key limitations noted in the literature. It eliminates fragmentation through systematic cross-comparison of data, overcomes descriptiveness through the use of classification schemes, and connects theory with practice by reconstructing real pedagogical processes. This creates the basis not only for identifying differences, but also for identifying areas of mutual enrichment of techniques.

The unique experience of the research and methods laboratory *Music Computer Technologies* of the Herzen State Pedagogical University of Russia demonstrates the capabilities of modern electronic and digital musical instruments as components of the contemporary musical and media sphere (see more details in the works [35]-[40]). The employees of the RML *Music Computer Technologies* of the Herzen University implement a wide range of continuing professional education programs for training and retraining musicians with higher and secondary professional education, related to various areas of application of MCT in the modern musical and educational process at different levels, which is due, in particular, to the search for new approaches and methods of teaching music as a system of professional education. general and inclusive musical education. Among them are:

Advanced training programs (there are more than 20 of them; the study period is from 1.5 to 3 months): *Music Computer Technologies*, *Technologies of Artistic Sound Processing*, *Electronic Musical Synthesizers*, *Computer Musical Creative Work*, *Musical Sound Engineering*, *Methods of Teaching Musical Disciplines Using Music Computer Technologies*, *Distance Technologies in Musical Education*, *Art of Performing Skills and Arrangements on Electronic Musical Instruments*, *Interactive Network Technologies for Teaching Music*, *Information Technologies in Music*, *Creating an Electronic Educational Environment for Distance Musical Education*, *Creation of Audiovisual Content in the System of Distance Musical Education*, *Information Technologies in Musical Education*, and others;

Professional retraining programs (there are 7 of them; the study period is from 1.5 to 3 years): *Teaching Musical Disciplines Using Music Computer Technologies*, *Teaching an Electronic Keyboard Synthesizers*, *Information Technologies in Music and Musical Education*, *Remote Educational Technologies in Music and Musical Education*, *Technologies for Creating and Artistic Processing of Sound Information* (with the issuance of a diploma in the specialty "Sound Engineer"); developed and introduced into the educational process -

Production and Marketing in the Modern Musical Industry and Teaching Academic and *Popular Vocals Using Musical Computer Technologies in the Solo Singing Class*.

8. Conclusion

National schools, including Russian and Chinese, have significantly enriched the world piano pedagogy, bringing their own unique methods and traditions to it. However, the evolution of targets in the historical perspective shows multidirectional trends, but the synthesis of cultural influences in Chinese standards is of particular interest. The document [7] combines Soviet traditions (expressed in the "priority of technical equipment"), European canons (reflected in the requirement to "master the classical-romantic repertoire") and national specifics. Russian standards demonstrate a different, centripetal model. The national tradition is not explicitly explained here, but is present as an invisible basis. For example, Neuhaus' principles of the unity of the emotional and rational can be traced in the requirements for the "harmonious development of technical and artistic skills" [5]. The systemic influence of these normative differences on pedagogical methods is obvious. The Russian mindset of independent learning legitimizes the use of heuristic methods, psychotechnical approaches, and individual research projects. The Chinese emphasis on systematic mastery, in turn, supports reproductive methods, technocratic approaches, and standardized group training. The attitude towards innovation in regulatory documents is significantly different. Russian Federal State Educational Standards mention digital technologies only in the context of auxiliary tools, whereas Chinese standards include "digital didactics as an integral component" of professional training. The conclusions of the comparative analysis of the regulatory framework reveal fundamental differences in the educational philosophy of the two countries. The evolution of the piano and pedagogy demonstrates a deep relationship between the technical capabilities of the instrument and educational strategies. The contributions of various national schools, in turn, have significantly enriched global teaching practice. Today, modern technologies, including digital pianos and educational programs, continue to transform the educational process, making learning to play the piano more accessible and offering new, diverse ways to master the instrument.

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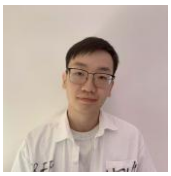

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