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INDIVIDUAL TRAJECTORY OF FORMING A PIANIST'S PERFORMANCE STYLE IN THE CONTEXT OF PERSONALISED LEARNING IN A HIGHER ARTS INSTITUTION

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SUMMARY. This study aims to reveal the individual trajectory of their performance style formation. It is viewed as a progressive strategy with unique content that provides a flexible approach to each student. The research methods chosen included analysis, comparison, synthesis, and observation. Based on these, the author developed a methodology for training pianists. It is based on creating a series of psychological, social, and material-technical conditions. The results demonstrate a deeper aesthetic understanding of world piano culture and an openness to various learning models. The results are also characterised by a respect for each student's philosophical worldview and cultural identity, along with an enhanced acquisition of theoretical knowledge. It was found that effective implementation mechanisms include a varied repertoire, adapted to the student's artistic interests, and the monitoring

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of performance gestures. The prospects for research lie in highlighting new components for improving a unique learning system, the foundation of which is the individual trajectory of pianists' development of their performing style.

Keywords: learning environment; ethnic identification; interpreter's psychophysiology; software; creative thinking.

1. Introduction

One of the most pressing problems in modern music education is the search for and crystallisation of a unique, proprietary teaching methodology. This serves as the foundation for creating conditions that foster the development of a pianist's performance style along an individual trajectory. This issue was addressed by Ma.[6] The scholar concluded that the most effective way for students to achieve mastery is for teachers to develop universal proprietary teaching methodologies. These methodologies facilitate the profound assimilation of performance practice aspects such as a rich repertoire, musicality of interpretation, and the flexible use of sound contrasts.

Special attention is given to the vivid display of different voice lines in polyphonic works, as well as a creative attitude toward rehearsal and stage work, with compositions by various authors.[7] No less significant is the challenge of developing an effective system of music education that utilises digital technologies. Wang addresses this issue.[8] The expert emphasises that online performance art courses are gradually gaining popularity in society. Their successful implementation requires the availability of digital musical instruments and increased accessibility for both teachers and students.

The issue of developing students' creative thinking also remains unresolved. This fact is explicitly noted by Wan, who highlights the significance of advanced technologies in university music curricula. This, in turn, directly opens up opportunities for students' creative development.[9] Another problem relates directly to the formation of mechanisms for effective interaction between students and artificial intelligence (AI) resources as they master musical

[6] Ma, RunTao. "Teaching Methods of Piano Playing: Concept of Universalism and Author's Philosophy." In *European Journal of Education*, 60(3), 2024. https://doi.org/10.1111/ejed.12881

[7] Ibid

[8] Wang, Yuezhi. "Creative Digital Tools for Teaching Piano." In *Revista Música Hodie*, 22, 2022. https://doi.org/10.5216/mh.v22.70961

[9] Wan, Weijia. (2023). The importance of developing creative thinking in the preparation of music education professionals in universities. In *Interactive Learning Environments,* 32(7), 2023, pp. 3686-3696. https://doi.org/10.1080/10494820.2023.2188400

disciplines. Modern students are interested in an advanced AI-powered learning system (like ChatGPT), which uses a series of question-and-answer algorithms and modernised technologies to stimulate academic and creative development.[10]

On a broader scale, music pedagogy faces the challenge of implementing interactive teaching methods based on electronic resources and identifying the tools necessary for their successful implementation. One solution is the development of an interactive online music education course that stimulates students' creative approach to acquiring the essential knowledge and skills.[11] Also of particular significance is the challenge of cultivating analytical thinking in future instrumental performers, particularly pianists. A group of specialists addressed this, emphasising the importance of highlighting key aspects of analytical thinking by studying the interpretations of musical works.[12]

This not only develops skills in the artistic perception of music but also fosters an understanding of the significance of a work's key components. These include the means of articulation and phrasing, dramaturgy through the sequence of climaxes, the handling of dynamics, the expressiveness of registers, and the context in which the composition was crystallised.[13] Ultimately, a significant challenge in the 21st century is the quest for a universal creative identity. Komenda and other contemporary scholars have focused on finding a solution to this.[14] In their opinion, the specific and characteristic features of this phenomenon are an expanded range of professional interests, personal motivation, and a particular typology of musicians. Depending on their field of activity, these individuals can be master performers, creators, pedagogues, or public figures[15].

The *novelty of the study* lies in considering the individual trajectory of a pianist's performing style as a complex integral system within contemporary

[10] Wang, Xia. "Integration of AI GPTs in Music Education and their Impact on Students' Perception and Creativity." In *Education and Information Technologies*, 2025. https://doi.org/10.1007/s10639-025-13531-7

[11] Wen, Mo. "Interactive Online Classes in Music Education: The Impact of Online Technologies on the Level of Creative Thinking of Students." In *Current Psychology,* 43(15), 2023. https://doi.org/10.1007/s12144-023-05411-5

[12] Vereshchahina-Biliavska, Olena, Mozgalova, Nataliia, Burska, Olena, Hrinchenko, Tetiana, Novosadov, Yaroslav. "Formation of Analytical Thinking through the Analysis of Interpretations of Musical Works in the Process of Training a Specialist Musician." In *Yegah Müzikoloji Dergisi*, 8(1), 2025, pp. 812-862 https://doi.org/10.51576/ymd.1628706

[13] Ibid

[14] Komenda, Olha, Kysliak, Bohdan, Marach, Oleksandr, Moskvych, Olha, Rehulich, Iryna. (2024). "The Structural and Activity Method of Studying the Universal Creative Personality (on the example of musical culture)." In *Convergences - Journal of Research and Arts Education,* 17(33), 2024, pp. 201-212. https://doi.org/10.53681/c1514225187514391s.33.240

[15] Ibid

music education. It has several key components that are deeply interconnected. Additionally, the role and significance of independent creative thinking as a component of individual learning strategies are thoroughly explored. By supporting its development and opportunities for multifaceted realisation, students become unique performers, combining the skills of an interpreter with an original, unique worldview. Thus, the research hypothesis involves determining the effectiveness, modernity, and universality of the individual trajectory in the formation of pianists' performing style as a complex, multifaceted, and, at the same time, holistic system.

The study aims to examine the developmental trajectory of a pianist's performance style. This trajectory is viewed as a progressive strategy with unique content and a flexible approach to each student.

The task setting includes solving the following *problems*:

- identify the key components of an individualised piano teaching strategy and analyse their content and functions;
- highlight the positive impact of each component of an individual learning strategy on skill development;
- reveal the interconnection between the components of an individual learning strategy and analyse their interaction as a single large-scale system with prospects for application in modern music education.

2. Literature Review

The problem of finding an individual approach to forming a pianist's performance style in the context of personalised learning at a higher arts institution is being actively raised and researched by contemporary scholars. For instance, the promising nature of software resources that motivate creativity not only in composers but also in instrumentalists is highlighted. This is made possible by the capabilities of the Expressive Music Variational Autoencoder (XMVAE) model, which is based on a variational autoencoder designed to capture the spectrum of expressive nuances inherent in music. By using a model like this, performers gain a broader range of artistic insights, which boosts their productivity when working on repertoire.[16] The objective evaluation of their interpretations plays an equally significant role in the training of professional pianists.

[16] Luo, Jing, Yang, Xinyu, Wei, Jie. "Exploring Classical Piano Performance Generation with Expressive Music Variational AutoEncoder". In *Sound*, 2025. https://doi.org/10.48550/arXiv.2507.01582

Currently, this can already be provided by engineering technologies. Using these resources, a thorough analysis of piano performances is conducted. This is accomplished through network flow optimisation methods, which can analyse audio signals and solve problems of various scales.[17] In the online environment, which is widely used in higher education institutions, gamified digital tools such as Nearpod, Genially, Educaplay, Breakout, and Quizizz are becoming increasingly important. They motivate students to acquire the necessary skills and knowledge through several key characteristics: efficiency, interactivity in the learning experience, real-time feedback, and the dynamics of mastering a musical discipline.

All this ensures positive results in the implementation of the didactic line in the field of professional training.[18] Mobile applications also play an essential role in this regard. They contribute to the autonomy and personalisation of teaching university curricula, which significantly improves the quality of student learning. Additionally, this enhances the effectiveness of the music education system, enabling it to improve the experience of future professionals.[19] The traditional method of mastering the basics of piano performance will take on new meaning thanks to the possibilities of virtual reality. They create a platform for interaction between students and other musicians, as well as the audience, which makes the perception of the different stages of learning a unique and creative process.[20]

A range of AI technologies helps to individualise the trajectory of pianists' performance style development. Among them, ChatGPT-4 is of particular importance. Its use in an educational environment helps to tailor music discipline materials to several specific university programme objectives and students' musical and aesthetic preferences. It also creates an atmosphere of calm, which has a positive impact on the ability to concentrate at the right

[17] Wang, Huang. "Research on Piano Curriculum Education and Its Performance Ecosystem Based on Network Flow Optimization." In *Applied Mathematics and Nonlinear Sciences,* 9(1), 2024, pp. 1-13. https://doi.org/10.2478/amns-2024-0830

[18] Candel, Elena, De-la-peña, Cristina, Chaves-yuste, Beatriz. "A Gamified Digital Framework in Higher Education: Impact on Learning and Motivation." In *Turkish Online Journal of Distance Education*, 26(3), 2025, pp. 60-84 https://doi.org/10.17718/tojde.1556533

[19] Osuna, Julio, León-Garrido, Antonio, Llorente-Cejudo, Carmen, Ruiz-Palmero, Julio. "The Impact of Mobile Apps and Workload on University Music Education: An Experimental Study." In *Revista de Educación a Distancia (RED),* 24(80), 2024, pp. 30-2024. https://doi.org/10.6018/red.602301

[20] Xu, Leiming. "Construction of an Interactive Platform for Piano Teaching in Virtual Reality Environment." In *Applied Mathematics and Nonlinear Sciences,* 9(1), 2024. https://doi.org/10.2478/amns-2024-3113

moments.[21] In the context of the materials mentioned above, the fact that scientists have revealed the effectiveness of various software models is of considerable value.

This opens up a wide range of resources for music education, including the material and technical base of teaching and its functions in improving the conditions for students to master educational programmes and optimising the academic environment in general. These conclusions align with the authors' study findings on the productivity of using computer technologies in the training of professional pianists. With the resources of modern engineering technologies, Internet platforms provide students with the opportunity to imagine themselves in various contexts, both real and virtual. This greatly enriches the palette of their impressions and emotional perception of their activities, which can increase their scale and content in general.

The successful formation of individual learning trajectories during the 20th and 21st centuries was facilitated by the attention that representatives of higher music education paid to the sources of folk art. Thanks to the study of the most valuable examples of folklore, its unique intonational and rhythmic foundations, the laws of form-building, and the projection of performance principles from ethnic instruments onto the piano, a new artistic foundation was formed. Consequently, a vast panorama of pianistic styles and structures characteristic of concert works emerged. All this, in turn, has renewed and enriched the content of the music education system, paving the way for the crystallisation of its personification.[22]

Turning to the primary sources of the ethnic culture of different peoples in the context of globalisation opens up ways to renew and greatly enrich piano literature and modern academic schools of pianism. This also applies to teaching methods designed to uncover and develop the unique abilities of a future performer. This aligns with the view of the authors of this study. In their opinion, when modern pianists incorporate music that reflects the most vivid ethnic elements into their repertoire, it broadens the scope of their general culture and professional worldview, shaping the qualities of a world-class, universal performer.

The foundation for the deep and multifaceted implementation of individual learning strategies for performers is the support of students' creative thinking. It reflects the readiness of future professional pianists to solve various,

[21] Zhou, Wang, Kim, YeaJin. "Innovative Music Education: An Empirical Assessment of ChatGPT-4's Impact on Student Learning Experiences." In *Education and Information Technologies*, 29(16), 2024, pp. 20855-20881. https://doi.org/10.1007/s10639-024-12705-z

[22] Bai, Zuolian, Wu, Chao. "Analysis of the Style and Characteristics of Chinese Piano Performance in the 20th Century from the Perspective of Ethnicity." In *Herança*, 8(1), 2024, pp. 190-205. https://doi.org/10.52152/heranca.v8i1.840

sometimes unexpected creative tasks, demonstrating flexibility, attention to project details, speed of information processing, and appropriate decision-making.[23] The importance of the phenomena of "creativity" and "artistic creativity" is also emphasised in the context of individual learning trajectories. Indeed, "artistic creativity" represents a unique environment where students have the opportunity for self-expression. The drive to fully realise this is the expression of "creativity".[24] Its manifestation is interpretive autonomy, which gives students a sense of competence, independence, and the value of their aesthetic perception of musical works. This fosters learning because it is based on supporting their needs.[25]

As a continuation and expansion of this concept, the idea of a deep and multifaceted study of the aspects of human musical thinking emerged. It encompasses both objective circumstances of personality formation (social environment, historical period, and cultural values) and subjective characteristics (psycho-physiology, spectrum of interests, and the direction of creative realisation). Its foundation consists of emotional and logical components, whose code is musical intonation - a carrier of unique information.[26] Therefore, the issues of implementing software resources and developing creative, aesthetic, and artistic thinking are becoming increasingly relevant and are being gradually researched by contemporary scholars. However, several problems still exist that are directly related to the development of a strategy for individual piano training. This paper is dedicated to their research.

3. Materials and Methods

3.1. Research procedure

The research is based on four stages (Figure 1). In the first stage, the quality of students' and pupils' performances of various pieces was monitored. In the second stage, their repertoire content and the stylistic directions most familiar to each were determined. The spectrum of their emotional reactions

[23] Islam, Hana, Budiyono, Budiyono, Siswanto. "Creative Thinking Skills from the Best of Self-Efficacy." In *AIP Conference Proceedings,* 2566(1), 2022, article number 020008. https://doi.org/10.1063/5.0120228

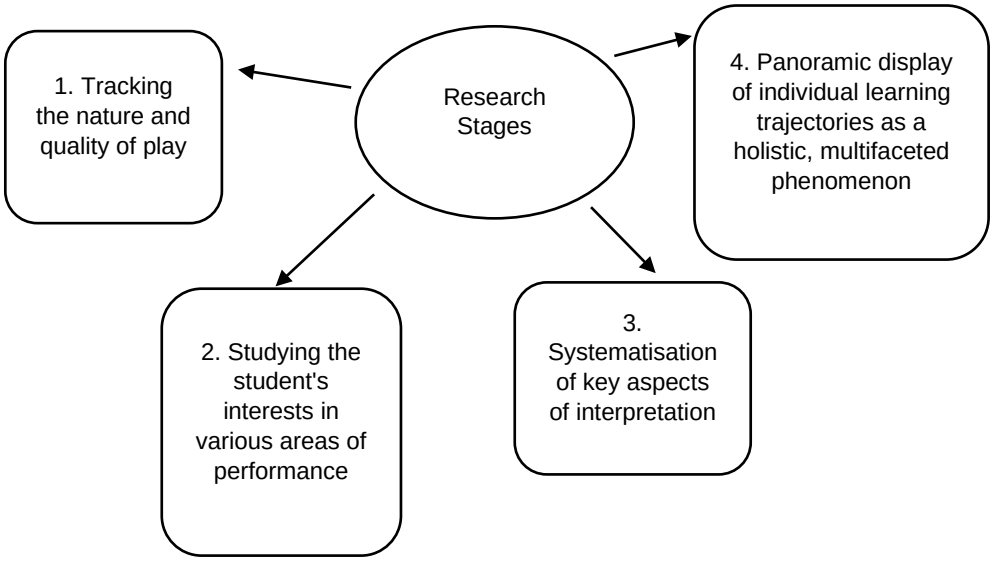
[24] Tetelea, Margarita. "Training of Artistic Skills of the Music Teacher." In *Review of Artistic Education*, 20(1), 2020, pp. 304-308. https://doi.org/10.2478/rae-2020-0035

[25] Fujimoto, Marie, Uesaka, Yuri. "Interpretive Autonomy at the Heart of Classical Musicians' Learning and Well-Being: The Role of Professional Education." In *Frontiers in Psychology,* 16, 2025, article 1543268 https://doi.org/10.3389/fpsyg.2025.1543268

[26] Vereshchahina-Biliavska, Olena, Mazur, Iryna, Burska, Olena, Iskra, Svitlana, Teplova, Olena. "Musical Thinking Problems." In *Thinking Skills and Creativity*, 46(5), 2022, article number 101138. https://doi.org/10.1016/j.tsc.2022.101138

to a musical composition was also identified, both during its study and when it was being performed on stage. In the third stage, the researchers compiled the data and conducted a comparative analysis. In the fourth stage, all of this was brought together into a single framework and presented as a holistic, complex system.

Figure 1



The process of researching the individual learning trajectory: main stages
Source: created by the authors

3.2. Sampling

The research materials included, in particular, scholarly papers focused on addressing a wide range of questions related to creating the most optimal conditions for pupils and students to acquire the necessary knowledge and skills. Particular attention was paid to research concerning their interest in the gradual improvement of performance quality and the development of a connection with the audience in various formats, including remote. A no less significant role was played by the fact that the authors of the study had the opportunity to observe specific results from applying their proposed key aspects of individual performer training. This took place in various music education institutions, including schools, colleges, and academies. The study

investigated modern educational issues, including the principles of motivating pupils and students to master repertoire and the factors that stimulate their professional growth.

The interrelationship of these factors, their significance, and their influence on the formation of creative individuality were also analysed. For this purpose, the process of mastering piano pieces by representatives of various age groups was tracked from 2023 to 2025. The sample included 20 senior music school students, 20 fourth-year students from music colleges, and 20 third- and fourth-year students from higher music education institutions. The total sample size was therefore 60 individuals. The ability to monitor the academic performance of representatives from different levels of music education provided the researchers with a clear picture of the implementation of key aspects of individual learning and their effectiveness.

3.3. Research methods

The research methods chosen were analysis, comparison, and synthesis. Through the study, the internal structure of the individual training strategy for performers was revealed. Analysis also helped to uncover the content and functional significance of each of its components. In turn, comparison and synthesis served as the foundation for systematising and compiling the components of the individual approach to training professional pianists into a single, comprehensive phenomenon of pedagogical practice.

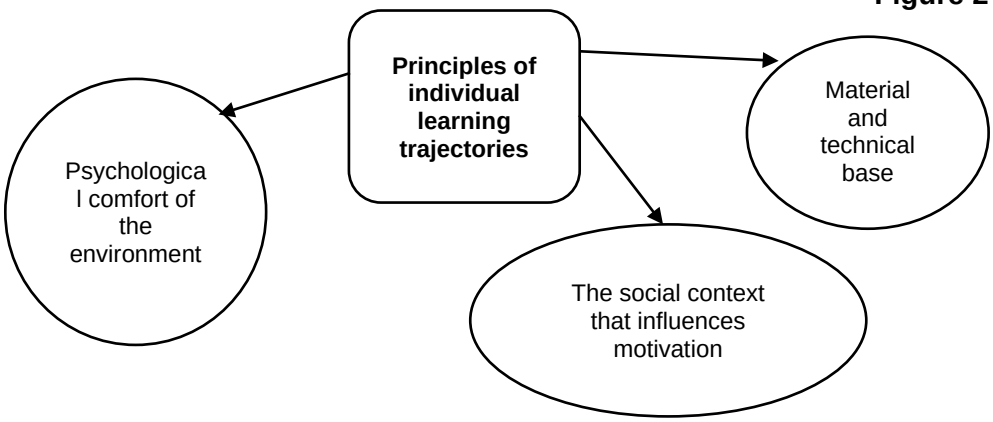
The analysis method provided a panoramic view of the key elements of the personal approach to learning. Information about these elements enables the creation of comfortable and attractive educational environments. The comparison method helped to determine both the content and function of these elements, as well as the connection between them. Finally, the synthesis method served as the foundation for the author's methodology in developing performance skills, focusing on the individual development of pupils' and students' unique abilities. Thus, this study implements one of the forms of scientific inquiry – observation – which helped systematise the author's methodology for individual pianist training. It includes:

- understanding the interests of pupils and students;
- paying attention to their psychological and physiological characteristics;
- studying the characteristics of their executive apparatus;
- monitoring the stylistic trends, genres and concepts closest to their creative personalities;
- revealing their individual needs with learning conditions.

4. Results

The creation of psychological, social, and material-technical conditions that foster the realisation of a person's creative potential serves as the foundation for the successful implementation of an individual's trajectory in forming a pianist's performance style (Figure 2).

Figure 2



The foundation of an individual strategy in music education
Source: created by the authors

For the successful development of a future pianist's creative personality, it is crucial to provide students with opportunities to explore their own artistic and aesthetic interests through a diverse repertoire. When the curriculum encompasses works from a diverse range of stylistic directions, genres, scales, and performance styles, conditions naturally arise for the creation of a laboratory for individual performers. A student gradually builds a unique library of compositions that most resonate with their personality. This approach also motivates students to participate in experimental projects, which serve as a platform for them to test their potential in various conditions. This, in turn, helps them choose the area of artistic concepts that most resonates with them.

One component of a personalised approach to training professional pianists is monitoring the *movements* of future specialists during the interpretation process. Recognising their origin and nature helps to select a specific repertoire and directions for enriching the pianists' performing arsenal. Taking into account the psychophysiology of the musician, it becomes possible to create favourable conditions for the disclosure of their unique creative

potential and the formation of performing skills. Valuable information about a student's natural abilities can be gained by monitoring their work with a set of technical and interpretative exercises. Among these exercises are those with which the student is most comfortable. Thus, focusing on the types of exercises that are most appealing to the student can help them gradually build a comprehensive arsenal of skills.

The second, and no less important, component of the individual learning system is to ensure the *holistic and multifaceted development of the performer's emotional-sensory apparatus*. Activating this is fundamental to the successful formation of a unique interpretive style, which will eventually become a reflection of mastery. In this instance, the *repertoire* also plays a role, as it is selected to match the specific nature of the performer's emotional perception of musical works and their ability to convey them to an audience.

The development of engineering technologies in the 21st century has made it possible to introduce another component into music education: *the evaluation of playing quality using software resources*. Electronic instruments, particularly the piano, provide students with a comfortable environment when working on a musical piece, as they strive to find an approach to uncovering and conveying its key idea to an audience. These conditions are related to the ability to coordinate volume levels at different stages of studying a piece and the ease of contact with the keyboard. They also include the ability to record your performances while getting to know the music of a particular composer and preparing it for concert performance. Modern engineering programmes open up a new dimension for students, in which they feel involved in an atmosphere that is closest to the conditions of the stage and performing in front of a large audience. This is achieved through the use of virtual, augmented, and mixed reality resources.

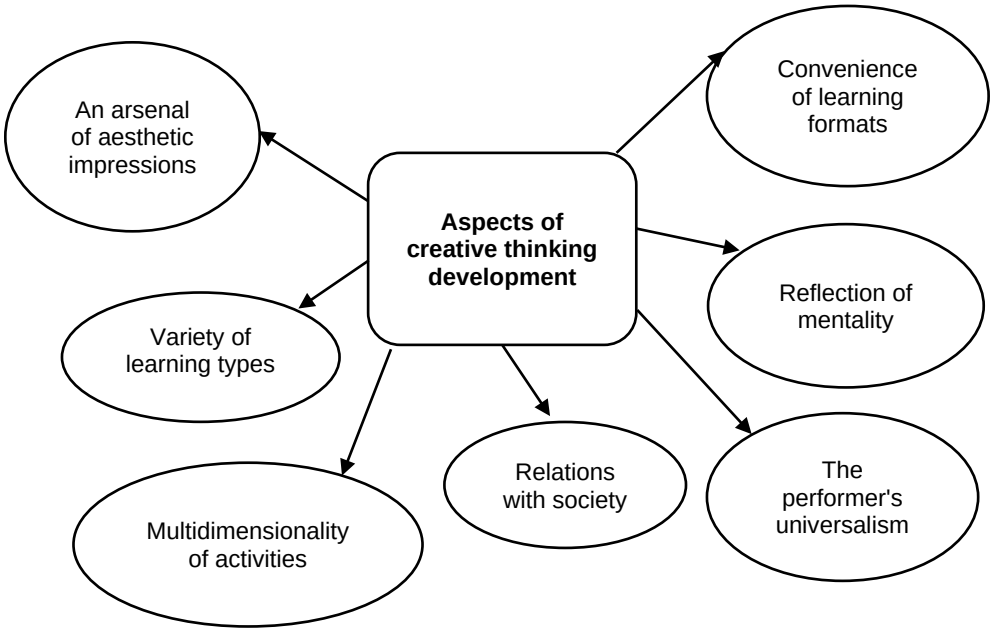
It is essential to emphasise the role of that component in shaping a performer's individuality, which is closely tied to the unique characteristics of their native ethnic culture. This culture formed the environment into which the performer was born and served as the context for their creative development during the initial stages of personality formation. Referring to musical material that embodies the intonational and rhythmic foundation, as well as the compositional structure of the folk oral-professional tradition to which the future professional pianist belongs, is essential. This approach enables the cultivation of a high-level performer capable of conveying to the world the sources of the unique identification code of the art of their homeland.

One of the most critical components of successful training for a modern instrumentalist in an individual format is creating conditions for the development of independent, creative thinking. This is achieved through the acquisition

and gradual enrichment of several aspects that are integral to the training of a professional performer (Figure 3). These include:

- aesthetic experience of perceiving the world's musical culture;
- offering various types of skills and knowledge acquisition, including advanced engineering technologies;
- realising creative potential in various areas of activity;
- setting up professional and social communications;
- attempting to participate in groups and creative associations where different styles of interpretation are practised, which forms a flexible, innovative approach to the environment, surroundings and situation;
- respect for each student's unique philosophical position and worldview;
- Intensification of the process of profound and large-scale assimilation of the theoretical knowledge base related to the art of piano performance.

Figure 3



Basic components of creative potential development
Source: created by the authors

All of the above-mentioned components of the individual approach to shaping the performing style of future professional pianists are fundamental to the author's teaching methodology in music disciplines. It is based on the direct, balanced, and flexible use of each of them, according to objective conditions: the level of preparedness of students, their psycho-physiology, deep interests, and plans for the future. The practical implementation of all these components of individual training for professional musicians creates, above all, a comfortable environment. It motivates students to improve their performance level, focus on world-class pianistic skills, and develop within themselves the potential to achieve high-quality interpretation.

5. Discussion

Modern music education employs various approaches to implementing the principles of individualised learning. Among them, particular attention and support have been given to the phenomenon of performance variability by students in different contexts. This variability becomes a sign of independent thinking, a certain level of mastery, and the revelation of musicians' unique creative potential in general. The principle of gesture mapping supports the documentation of the diversity in interpretive processes. Its mission is to provide knowledge about the interaction between musicians and instruments, and to create a unique design of performance practices that reveal their meaning to a global audience.[27]

Its foundation is such an integral part of musical art as expressive performance. It is a laboratory for pianists, where various unique parameters of interpretation that go beyond the musical notation are reflected: tempo, rhythm, dynamics, intonation, and articulation. As a result, entirely new emotional, affective, and dramatic characteristics of musical works emerge, enabling a truly creative dialogue between performers and the audience. The unlimited range of these expressions is generated by contemporary engineers in the field of digital technologies, whose resources offer unique opportunities for creating popular music.[28]

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[27] West, Travis, Caramiaux, Baptiste, Huot, Stephane, Wanderley, Marcelo. "Making Mappings: Design Criteria for Live Performance." In *Proceedings of the 2021 International Conference on New Interfaces for Musical Expression (NIME 2021),* IDMIL, 2021. https://www.idmil.org/publication/making-mappings-design-criteria-for-live-performance [data of access July 20, 2025]

[28] Bontempi, Pierluigi, Canazza, Sergio, Carnovalini, Filippo, Rodà, Antonio. "Research in Computational Expressive Music Performance and Popular Music Production: A Potential Field of Application?" In *Multimodal Technologies and Interaction*, 7(2), 2023, 15; https://doi.org/10.3390/mti7020015

The panorama of methods for shaping the uniqueness of pianists' playing styles is significantly enriched by the well-established role of relying on folk sources, uncovering the philosophical content of music, its spiritual and semantic dimensions, and ethnic self-identification.[29] The effectiveness of implementing an individualised learning strategy is further enhanced by the active development of performers' polyphonic hearing. The methods employed are based on enriching the educational and concert repertoire with polyphonic works from various eras, schools, and styles, as well as their multifaceted study, which motivates young musicians to master the techniques required for performing such compositions.[30]

The authors of the study fully support the aforementioned system of approaches to the training of professionals in the field of piano performance. According to the methodology proposed in this work, it enables a broad expression of students' original individual perspectives on both the interpretation and performance of musical compositions. Recognising the role and significance of folk tradition, as well as complex polyphonic patterns in the context of repertoire, paves the way for the development of world-class specialists. The principle of mapping is a common way of focusing attention on the specifics of a student's movements during performance. According to the study's authors, this is a key component of a pianist's development trajectory.

The environment for acquiring the necessary skills and knowledge is equally critical to the effectiveness of modern music education. In particular, according to scientists, the well-known and quite popular social network platform WeChat contributes to the active development of students' communicative and cognitive abilities. Its versatility lies in the fact that future professional pianists have access to lecture materials and automated knowledge testing. This allows them to analyse their repertoire, independently acquire the necessary additional information and work in a team with other students.[31] In this context, students are supported by the combinatorial neural network CLSA, which

[29] Lei, Kun, Luparenko, Svitlana. "Differences in the Piano Performances of Modern Composers of Different Countries: Are the Specifics of Piano Pedagogy Different in Different Countries (For Example, China and Italy)?" In *European Journal of Education,* 59(4), 2024. https://doi.org/10.1111/ejed.12788

[30] Mozgalova, Nataliia, Novosadova, Anna. "Motivation Bases for the Formation of Students' Polyphonic Hearing in the Process of Piano Training." In *Baltic Journal of Legal and Social Sciences*, 3, 2023, pp. 108-114. https://doi.org/10.30525/2592-8813-2023-3-14

[31] Chen, Tao. "Classical Music Education in China: The Effectiveness of the WeChat Social Media Platform and its Impact on the Communicative and Cognitive Skills of Music Students." In *Education and Information Technologies,* 29(13), 2024, pp. 17467-17483. https://doi.org/10.1007/s10639-024-12554-w

aims to visualise musical sounds, thereby contributing to the clear separation of the vocal part and accompaniment in musical works.[32]

The development of creative thinking, one of the most essential traits of a professional performer, is facilitated by the use of digital audio workstation systems in the music creation process.[33] Thus, the effectiveness of applying advanced computer technologies and software in the field of music education is confirmed, as stated by the authors of the study, for the successful implementation of an individual strategy in shaping a pianist's performance style. Modern scholars view this field quite broadly, focusing on a wide range of aspects, including social and creative communication, a vast informational base, and the modernisation of mechanisms for music creation and performance. This is of great significance to the authors of the study, as their initial focus was primarily on the function of software that assesses the quality of performance.

According to experts, listening to interpretations of works by pianists from different cultures, generations, schools, styles, and practices contributes to the successful formation of a performer's unique personality. This develops students' ability to self-regulate their mastery of the curriculum and concert repertoire.[34] It is directly related to the phenomenon of reflective thinking. If it accompanies individual and group music learning activities, it creates a foundation for activating cognitive, behavioural, affective, and motivational efforts. These efforts aim to regulate the metacognitive aspects of this activity.[35]

Contemporary research findings emphasise the significance of students' aesthetic experiences for the effective implementation of an individualised trajectory in developing a pianist's performance style within the context of personalised learning. It is a platform for accumulating practical skills in perceiving the artistic ideas of composers, related to them through sensory interactions, which activate all the resources of the performer.[36] This idea is

[32] Zhang, Qingru, Wang, Yan, Du, Yuelin, Li, Wei, Li, Hua. "Reform of Traditional Music Teaching Methods and Cultivation of Students' Musical Creativity on Digital Platforms." In *Applied Mathematics and Nonlinear Sciences*, 10(1), 2025. https://doi.org/10.2478/amns-2025-0026

[33] Yanan, Gai. "Use of Digital Audio Workstations in Music Education to Develop Creative Thinking and Increase Self-Efficacy." In *Current Psychology,* 43(29), 2024, pp. 1-12. https://doi.org/10.1007/s12144-024-06093-3

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further developed in the scientific coverage of the content and origin of "musical thinking" as a phenomenon of social reality. It consists of a whole range of components.

Among them, the key roles belong to "musical language" and "musical logic," which are formed in the context of a specific social, ethnic, and cultural environment. Its conditions have a direct impact on the nature of human thinking as a whole.[37] The development of creative thinking is fostered by a combination of students' active, hands-on practice and a holistic approach from their instructors in preparing future professionals.[38] These aspects of modern music education add depth and richness to the field of study, organically combining to form the complex system of an individual pianist's stylistic development. They are of undeniable value to the effectiveness and attractiveness of music pedagogy.

This, in turn, motivates young musicians to explore and internalise the fundamentals of piano artistry deeply. Hence, the context of personalised learning in a higher arts education institution is modernised, becomes more versatile, and ensures the multifaceted development of the unique creative potential of the performing artist's personality. The concept above is confirmed by the results of this study, which illustrate a comprehensive overview of key aspects for the successful implementation of individualised approaches to training professional personnel in the field of pianism.

5.1. Restrictions

The study is subject to certain restrictions. Firstly, the monitoring of the effectiveness of the individualised learning strategy was conducted over a relatively short time frame (2023-2025). Secondly, the sample size, comprising 60 individuals studying at various levels of music institutions, is limited.

5.2. Recommendations

The authors see great potential in applying the various components of an individualised learning strategy to shape a pianist's performance style, right from the early stages of their piano education. The capacity to track the

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development of each student's unique artistic identity throughout their professional training is of considerable value for creating flexible and relevant music education programs that meet modern demands.

6. Conclusions

The significance of this research lies in its quest to identify an effective training strategy for future pianists. A key advanced approach is the personalised pathway for the development of each student's unique performance style. This approach is built upon several core components, including the establishment of psychological, social, and material conditions that nurture an individual's creative potential. The practical outcomes of implementing these components include:

- aesthetic experience of perceiving the world's musical culture;
- offering various types of skills and knowledge acquisition, including advanced engineering technologies;
- realisation of creative potential in various areas of activity;
- setting up professional and social communications;
- attempting to participate in groups and creative associations where different styles of interpretation are practised, which forms a flexible, innovative approach to the environment, surroundings and situation;
- respect for each student's unique philosophical position and worldview;
- attention to his ethnic and cultural identity;
- an accelerated and profound mastery of the theoretical foundations of piano artistry.

Among the mechanisms for implementing an individual trajectory for the formation of a pianist's performing style in the context of personalised learning at a higher art institution, the following approaches have proven to be most effective:

- Providing the student with the opportunity to test their own artistic and aesthetic interests across a diverse repertoire; the monitoring of the future specialist's movement patterns during the process of interpretation;
- ensuring a comprehensive and multifaceted disclosure of the performers' sensory and emotional apparatus;
- the assessment of performance quality through both traditional methods and the utilisation of software resources;
- enriching the repertoire with examples of the distinctive ethnic culture to which the pianist belongs;
- creating conditions for the formation of independent creative thinking.

The practical significance of this study hinges on the development of an original methodology for the individual formation of pianists' performance styles. It is based on the identification of key components that facilitate the creation of an optimal environment and comfortable conditions. This, in turn, motivates the mastery of music disciplines and the realisation of the unique creative potential of future professional personnel in the field of piano art. The authors envision the prospects for further research in this field to lie in the elucidation and analysis of new components for the renewal, optimisation, and enhancement of the unique system of student training. The foundation of this system is the individualised trajectory of forming a pianist's performance style.

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