Current Trends in Music Pedagogy in Higher Educational Institutions

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The principle of expanding, enriching, and updating approaches to the implementation of educational programmes in higher educational institutions, related, in particular, to the musical art, is an urgent problem, both in geographical and epochal aspects. This phenomenon caused the authors of the study to address this topic. Its disclosure, characterisation of the most important elements (categories) that make up its content is the main purpose of this study. The coverage of such a phenomenon as the modernisation of music education in institutions of higher education, the definition of the components that are its basis and formalise this process into an integral system are the results of this study.

Keywords: performing practice, modernisation of educational programmes, cultural environment, categories, groups and vectors of learning, integrative principle

INTRODUCTION

The process of mastering educational programmes in higher musical educational institutions is a sphere that has been formed over the centuries. It is characterised, on the one hand, by enriching the fundamental base of practical principles of performance, on the other – by expanding the ideological inner content, through interaction with such areas of social thought and technological progress as sociology, psychology, history, ethnography, political science, economics, computer science. Thus, the problem of revealing and studying modern trends in music pedagogy in higher education institutions is gaining importance in the activities of researchers from various countries, cultures, and schools, in particular, Europe. As a consequence, this topic becomes the basis of this paper. In the process of its development, the author is

presented with the implementation of a project that is important for artistic culture, the life of society as a whole, both from a practical and theoretical standpoint.

The teaching of musical art, in particular, the basics of performing skills – is a multi-vector phenomenon, which determines its practical significance and assumes deep scientific development, for the establishment of a fundamental theoretical basis. It implies the existence in an indissoluble unity of a number of areas that must be considered in all their volume and content. One of them is the comprehension of the psychological appearance of the composer, the energy of their work and emotional component, and the response to music from the interpreter. This manifests a psychological and analytical approach to the training of the future performer (Syryatska, 2008; Mikhalyuk, 2020; Ortynskyy et al., 2018). Equally important is the study of historical styles and their most notable features in performance practice. It gives the musician the opportunity to broadcast to the audience spiritual traditions and features of the cultural life of various epochs, countries, creative schools. In this case, the interpreter often becomes a co-author of the creator of the works (Sumarokova, 2019).

The importance, both in practical and theoretical aspects, is also the penetration into the environment of cultural ethnic traditions left by previous generations of masters of art. Their awareness contributes to the national self-identification of future masters of the stage, thereby creating a favourable ground for the transfer to modern society of the foundations of creativity of a particular nation or state (Mikhalyuk, 2020; Sumarokova, 2019; Belozub, 2014; Kim et al., 2020b). It is also necessary to reveal the spiritual values of a certain people and their projection on musical creativity to highlight the current trends of music pedagogy in higher educational institutions. Thus, performing practice is considered, among other things, as an aspect of the spiritual culture of society, which, in turn, serves as a powerful incentive for its maintenance, expansion of the spheres of dissemination and preservation in the future (Mikhalyuk, 2020; Terletska et al., 2020). Ultimately, the fact of rapid technological progress in the life of society dictated the importance of highlighting the process of updating the presentation of art compositions, due to the introduction of information and communication technologies (Ward, 2019; Maričić et al., 2019; Anđić et al., 2021). Notably, the presence of such a number of components has determined the integrative nature of the field of music pedagogy, predisposed to a wider and more active application of interdisciplinary approaches in the development and implementation of educational programmes.

Thus, the task of the researchers is to investigate the current trends of music pedagogy in higher education institutions as a holistic and multifaceted phenomenon, with an analysis of all its most important components. Each of them, in turn, has a complex internal content, which, as a result, determines the course of the process of learning musical art. Thus, the analysis of the materials revealed the vectors of the implementation of educational programmes in higher musical educational institutions, in particular European ones, and groups of categories that form the foundation of pedagogical practice, the purpose of which is to prepare performers, stage actors and top-level professionals. The relevance of the development of this topic is also conditioned by the fact that it was not presented as a separate autonomous scientific object. This, in turn, emphasises the prospects of research activity and the theoretical conclusions and practical conclusions obtained as a result of it related to this area. It represents a wide field for the activities of musicologists and practising performers in the future.

MATERIALS AND METHODS

The issues under study have led to the search for materials, research methods, and access to sources covering aspects of music pedagogy in higher educational institutions, presented as an integral composite system. The volume of the topic under consideration and its multi-vector nature served as the basis for the implementation of the method of collecting information related to such areas of mastering performing practice, in particular, piano playing, as the relationship of this discipline with the subject areas of the adjacent and distant plan, its methodological (practical and theoretical) base, spiritual national soil, modernisation through the use of modern software information and communication technologies.

In accordance with the characteristic content of each of the above-mentioned areas of training of performance artists, in particular pianists, the method of systematisation of information obtained as a result

of the collection of materials related to the phenomenon under consideration is being implemented. For this purpose, the method of deducing and determining groups, which, according to their specifics, include elements of musical pedagogy, is used. The groups represent the previously listed areas of teaching in higher education institutions. The disclosure of their tasks, the content and effectiveness for the educational process contributes to the identification of the elements on which they are based.

The materials addressed to the problem of this study are subjected to the method of clearly delineating the components (elements) of the educational system, which, in turn, serve as categories of modern musical pedagogical practice. The study uses the method of analysing sources devoted to the investigation of this phenomenon. Based on its results, the method of deducing and determining the elements of musical pedagogy of the present time gets its implementation. The method used by the researcher to complete the materials under study indicates that such elements are the deciphering of semantic models of the work and the comprehension of the author's style, which, in turn, determines the factor of joint creativity of the composer and performer. The method of studying the characteristics of each of the components of the educational system also helps to identify such categories as the intonation and rhythmic structure of the composition, its ethnic and national specifics, and the historical foundations of performing skills. The method of deducing the categories of the educational process makes it obvious that there are components of musical pedagogy within its framework that are directly related to the ideological understanding of improvisation as a phenomenon of the creative process, with the projection of theoretical knowledge on performing practice, with the awareness of composition and its performance as part of spiritual culture and the formation of aesthetic, psychological foundations of concert performance.

The study revealed the role of such elements of the educational complex as the conditions necessary for the preservation and further development of a high-level artistic culture, the use of innovative technologies in the learning process, comprehension of the psychology of students, musicians-interpreters, the establishment of a base of pedagogical techniques in the approach to teaching a future concert performer, the vision of the professional orientation of students and stage artists in inseparable unity, as parts that complement each other, the need for the practice of creating creative collectives (from chamber ensembles to larger groups), monitoring the interrelationships between the cultural sphere (in particular, music education) and the life of society. All the categories are subjected to the systematisation and staffing in accordance with their content and functions of the group (sphere) of music pedagogy in higher educational institutions.

Based on these components, the method of forming such composite blocks of performing arts training is used as an interdisciplinary aspect (includes the study of musical creativity in the context of history, sociology, psychology); methodological aspect (includes the development of student's self-identification, an individual approach to their psychological constitution, the development of skills of concert and performing culture); preservation of spiritual, ethnic traditions (includes the study of folklore sources and the nature of their implementation in performing practice, methods of broadcasting the spiritual heritage of ancestors based on the reflection of its semantics in music); innovative approach to learning; theoretical basis (includes the projection of the analysis of musical work on the practice of its interpretation, a sense of involvement in the process of creating music in unity with the composer). The groups identified in the course of the study of materials from the music training system and their constituent categories further receive their design in the form of a panoramic picture-scheme embodying the state of the problem under consideration at the present time period. Thus, the study uses methods that allow, on the one hand, revealing the content of such a phenomenon as modern pedagogy in higher musical educational institutions, on the other – providing coverage of its needs and outlining the prospects for enrichment, expansion of the internal framework and spheres of its influence on progress in public life.

RESULTS

The study of materials devoted to the problem of the implementation of modern trends in music pedagogy in higher educational institutions has opened up the opportunity to present this phenomenon in the form of a complex panorama picture that conveys its volume, complexity, and multi-vector nature. For

a more complete, in-depth vision and understanding of the essence of this topic, the paper contains a guide scheme (Table 1) for a set of categories (components) that form the basis of teaching activities in higher musical educational institutions.

TABLE 1 LEADING COMPONENTS OF MUSIC PEDAGOGY

| Name of the teaching activity element | Characteristics of the teaching activity element |
|---|---|
| Co-creation of the composer and performer | Contributes to the comprehension of the cultural atmosphere of the epoch in which the piece of work was created, and its stylistic tendencies in combination with an individual reading of the composition, the introduction of original features of interpretation, where, at the same time, the spiritual and psychological kinship of the composer and performer is manifested |
| Decoding semantic models of the work | Promotes the awakening, development, and implementation of students' associative thinking, vision of symbolic, metaphorical details and aspects of musical composition, skills of showing them in the process of performance, to convey to listeners |
| Comprehension of the author's style and ways of its implementation in the composition | Identifies the concepts of "epoch" – 'author", expanding the scope of perception of space and time, as well as phenomena accompanying different periods, features of their reading in the educational process |
| Study of the intonation and rhythmic structure of the composition | Allows expressing the thought most fully, and the style and means of expression, the compositional technique of the author, the relationship with the ethnic origins of their musical thinking and the ways of their transmission in the text |
| Ideological understanding of improvisation as a phenomenon and creative process | Implements the deep individual creative potential of students, through the development of an attitude to performance, as the fact of a new regular birth of compositions performed earlier and repeatedly |
| Projection of theoretical knowledge on performance practice (and vice versa) | Forms rationalistic thinking in the perception and display of the structure of the composition, combined with a lively deeply emotional attitude to it when performing, which, in turn, contributes to the qualitative translation of the integrity and completeness of the work, the logic of the development of its material. |
| The use of innovative technologies in the learning process | Helps to preserve the communication between "teacher" and "student", and also makes the presentation of an educational programme more flexible and comfortable in the process of working on it |

| Identification of ethnic and national specifics of the work Awareness of the composition and its performance as part of the spiritual culture of | Promotes the vision in the inseparable unity of such phenomena as "nation" – "musician", explaining the essence, functions, and significance of the means of expression used by the composer in the work Promotes the formation of views on the performing discipline as a way to reflect, preserve and transfer to |
|--|---|
| society | future generations of spiritual values on a local and global scale |
| Development of aesthetic and psychological foundations of concert performance | Creates the foundation for the success of artistic activity, due to the development of means of realising the possibilities of an individual emotional and personal apparatus through the prism of technical skills acquired during training, performance culture associated with the artistic traditions of a particular school |
| Providing the conditions necessary for the preservation and further development of high-level artistic culture | Forms the material and technical base for the implementation of training and further practical activities of musicians, and also contributes to the study of the experience of previous generations of stage masters and the preservation of performing traditions that have become classical, combined with their enrichment and renewal in the context of modernity |
| Comprehension of psychology of students, more broadly – musicians and interpreters | It opens the opportunity for the student to realise their psychological and physiological constitution and, in accordance with it, to find the most effective approach to the presentation of the work, and to form a repertoire where the most favourable ground for reflecting their natural temperament opens |
| Development of a base of pedagogical techniques in the approach to training a future concert performer | Ensures the fundamental nature of the training system by preserving and replenishing with new technical standards the complex of interpretation tools that make up the performing school |
| Vision of the professional orientation and personal constitution of students and stage artists in inseparable unity, as parts that complement each other | Provides an opportunity for an extensive and in-depth perception of the performer's activity as a phenomenon caused, on the one hand, by the nature of human nature, on the other hand, by the reflection of progress in the global musical art |
| Need for the practice of creating creative teams | Implements the creative potential of students and improves their playing skills, the sense of the ensemble, due to the possibility of live music |
| Monitoring of the interrelationships between the cultural sphere and the life of society | Provides a picture of the society's response to the level of the performing school, its requests and encourages students to improve the quality of concert programmes in general and each of their individual numbers, in particular |
| Study of the historical foundations of performing skills | Creates the ground for saving the achievements of previous eras, their implementation in the context of modernity and highly professional synthesis with new interpretation techniques |

All the elements of pedagogical activity listed in Table 1 in higher musical educational institutions constitute its categorical apparatus, forming the area under consideration into an integral complex system. These components, in turn, based on their content, characteristics and functions, are grouped based on which educational programmes of the present time period are implemented. Table 2 contains a –list of groups that represent the basis of educational activity in the context of modernity and the elements that make up them.

TABLE 2
GROUPS OF EDUCATIONAL COMPONENTS

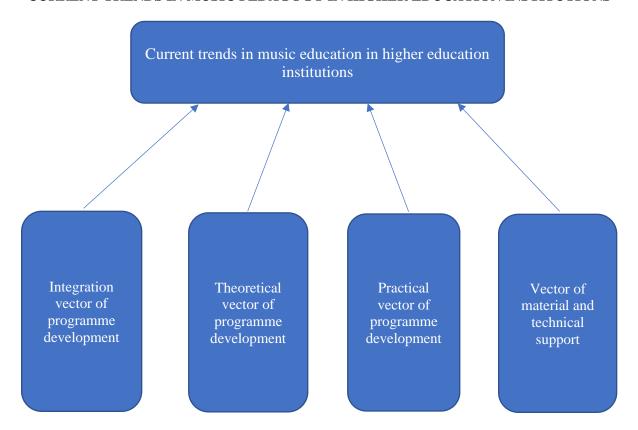
| Name of the group | Elements that make up the group |
|---|---|
| Interdisciplinary group | The study of the historical foundations of performing skills; Monitoring of the interrelationships between the cultural sphere and the life of society; Practice of forming creative teams; Consideration of the professional orientation and personal constitution of students and stage artists in inseparable unity; Comprehension of the psychology of students, more broadly – musicians-interpreters. |
| Pedagogical ideas and methods | Development of the base of pedagogical techniques in the approach to teaching the future concert performer; Development of aesthetic and psychological foundations of concert performance; Ideological understanding of improvisation as a phenomenon and creative process; Co-creation of the composer and performer. |
| Spiritual, national, and ethnocultural traditions | Awareness of the composition and its performance as part of the spiritual culture of society; Identification of the ethnic and national specifics of the work. |
| Technological modernisation | The use of innovative technologies in the learning process; Provision of the conditions necessary for the preservation and further development of high-level artistic culture. |
| Research thinking | Projection of theoretical knowledge on performance practice (and vice versa); Study of the intonation and rhythmic structure of the composition; Deciphering semantic models of the work; Comprehension of the author's style and ways of its implementation in the composition. |

Notably, the material identified as a result of the study, the elements of pedagogical activity and the groups formed by them form the vectors of learning. They play a key role in the implementation of programmes of higher educational institutions in the field of musical performance. Thus, the categories of the educational process designated as "Deciphering the semantic models of the work", "Monitoring the interrelationships between the cultural sphere and the life of society", "Comprehension of the psychology of students – musicians and interpreters", "Development of aesthetic and psychological foundations of concert performance", "Awareness of the composition and its performance as part of the spiritual culture of society", "Identification of ethnic and national specifics of the work", "The use of innovative technologies in the learning process" form the basis of the integration vector in the development of educational programmes of higher institutions. Categories under the names "Study of the historical foundations of performing skills", "Projection of theoretical knowledge on performing practice (and vice versa)", "Study of the intonation and rhythmic structure of composition", "Comprehension of the author's style and ways of its implementation in the composition" are part of the theoretical vector of the field of study.

The vector of practical development of disciplines is based on such categories as "Development of the base of pedagogical techniques in the approach to teaching the future concert performer", "Ideological understanding of interpretation as a phenomenon and creative process", "Co-creation of the composer and

performer". The vector of material and technical support is represented by the categories: "Provision of the conditions necessary for the preservation and further development of high-level artistic culture", "The use of innovative technologies in the learning process". With the help of Figure 1, a panorama of music pedagogy in higher education institutions at the present stage is given.

FIGURE 1 CURRENT TRENDS IN MUSIC PEDAGOGY IN HIGHER EDUCATION INSTITUTIONS



The elements (categories) of educational activity, their groups and vectors form the foundation of music pedagogy in higher educational institutions of the present time. Its current trends are based on the factors of expanding the scope of this sphere, integrating within its framework a number of disciplines, both close and distant in relation to the musical art, as well as updating the ways of presenting the material necessary for the full-scale development of the training programme by students and the training of professionals – stage artists, musicians-teachers of the highest level.

DISCUSSION

There are different positions on the learning process and its methods. Researchers, investigating the problem of modern trends in music pedagogy of higher educational institutions, provide data from various areas of implementation of educational programmes. In particular, they offer various approaches to the transfer of experience and knowledge to students. Thus, the importance of the creative approach of teachers to the preparation of materials that form the basis of classes is noted. One of its manifestations is the creation of arrangements for ensemble music-making in the lower grades of Purbalingga Regency secondary schools (Nugroho, 2021). The importance of developing skills that provide motivation to master the performing discipline, both for students and teachers, is emphasised. They contribute to the development of emotional stability, a positive attitude to speaking in front of listeners, improve the quality of performance and create prerequisites for an objective self-assessment by teachers of their own professional competence and students of the results of their activities (Chmurzynska, 2021; Anđić et al., 2018).

Specialists, investigating the issues of music pedagogy in educational institutions in Europe, in particular, Finland, came to the conclusion that it is necessary to provide students with the opportunity to realise their creative potential in various types of musical activities. An increase in their number has a positive effect on the emergence of interest in learning on the part of students and motivates them to deeply master their chosen area of performing practice (Elmgren, 2021). The preservation of cultural continuity, through the appeal to the genres of the classical direction, combined with the use of new teaching formats, the development of modern styles of music, is one of the strategies and prerequisites for the successful development of educational programmes (Kuhn and Hein, 2021). According to scientists, special attention should be paid to the choice of methods of teaching performing disciplines, in particular, playing the piano, already at an early stage of mastering the instrument. Mastering the technique of interpretation is facilitated by such techniques as dynamic playing, articulation of musical text, teaching according to the Faber method adopted in one of the foreign schools (Utami and Widjajantie, 2020).

Specialists in the field of music pedagogy also monitor the demand for the profession of a piano teacher. Study in this area is carried out, in particular, in Croatia and indicates that the activity in question is in demand by society. This fact, in turn, creates the ground for expanding the practice of teaching musical and performing disciplines and increasing its effectiveness (Sabjar et al., 2020). The importance of studying pedagogical traditions, their preservation and transmission to new generations of the history of teaching musical disciplines is also considered by specialists (Talevski, 2006). Expanding the scope of educational programmes by studying the vast fund of modern media and cultural space, including "current soundtracks": trending, electronic, pop music, rock, is becoming one of the topical issues of teaching activities of the present time period (Navarro, 2018). The principle of interdisciplinary connections in the context of teaching students of higher musical educational institutions, in particular, the integration of ethnic artistic traditions associated with national instruments into the system of classical academic education, is actively practised in Asian countries (Indonesia) (Parikesit and Kusumaningtyas, 2020).

Researchers are interested in the fact of the influence of musical culture on the level of cohesion of people interested in the field of art, as well as its impact on neurophysiological processes in the human body and changes in the life of society (Clayton et al., 2020). The importance of cooperation between representatives of various disciplines, in particular, musical art and psychology, ethics, philosophy, cultural studies, is becoming especially obvious today (Jacoby et al., 2020). The researchers also raise the question of the beneficial influence of musical culture as a phenomenon on the development of personality, not only from a pedagogical standpoint, but also on a larger scale – on the communication of people and the general progress of society (Schäfer et al., 2020). In-depth study acquires the process of forming virtual groups for the study of musical culture. This topic is becoming particularly relevant at the present time, in connection with the adoption of health protection measures in the context of a pandemic (COVID-19). The attention of specialists is attracted by the fact that participants of such online communities are united by a sense of psychological and social comfort (collective identification) in the process of comprehending objects of performing art by joint efforts, by means of Internet communication (Draper and Dingle, 2021; Zholaushievna et al., 2022; Berkimbaev et al., 2013).

The process of introducing digital technologies (MIDI, digital audio and other new musical media) into music education and analysing their effectiveness, in order to create new, more advanced and flexible models of the digital embodiment of the sound environment contributes to the realisation of not only learning abilities, but also the deep creative potential of students (Zhang and Sui, 2017). The issue of creating new educational platforms providing informatisation of music education, its effectiveness, in particular, on the example of mastering the "Solfeggio" discipline is raised (Zhou and Yan, 2017). The problem of interaction of information and communication technologies and musical art in general and in the learning process, in particular, is showing its relevance at the present time. The presence of a high-quality engineering base in the life of society allows music to sound everywhere. This fact, in turn, puts society, as well as students, before a choice: what kind and quality of musical literature to give preference to. The software stimulates the activity of conscious activity of a wide audience, which determines the

significance and function of a particular segment of culture, conditioned upon the degree of its demand by listeners (Nowak, 2016a).

No less significant is the issue of choosing technological means of recording, storing and distributing samples of musical literature in general and, in the context of the implementation of educational programmes, in particular. Modern experts note the need to save items of the engineering base of an earlier period of time (CD, vinyl, cassette) in combination with its latest achievements. This is a serious argument in favour of the "technological eclecticism" supported by society (Nowak and Bennett, 2020; Kim et al., 2020a).

The research practice also reflects an approach based on the unity of various forms of social consciousness, in particular musical art and philosophy. Thus, according to researchers, the sound field translates the mobile essence of the world and the change of being in space and time. Modern forms of composition reflect, on the one hand, the awe of humanity before the unknowability of the essence of the universe, the laws of its harmony, on the other hand, they are a means of finding ways to salvation, finding mental balance. This issue is also raised in the field of training future performers (Kolomiets, 2021). Music and its role in the daily life of a person in the era of software, digital technologies is a problem that is gaining more and more scale at the present time, including in the educational environment (Nowak, 2016b). Specialists highlight the problem of the principles of submitting samples of musical literature, including in the process of mastering educational programmes in higher musical educational institutions. "Streaming", within the framework of which the cultural fund of the past and present is broadcast, reflects, first of all, the function of music as the sound background of the industrial world, whereas it is predetermined to transfer the aesthetic experience of perceiving beauty from previous generations to future ones (Hesmondhalgh, 2021).

The interaction of music and sociology during the period of education of adolescents and young people becomes active and requires monitoring by researchers. It turns out that it is obvious that music, in particular cultural projects, plays one of the key roles in the establishment of the student's self-identification as a person and the social group to which they belong, contributing to gaining of artistic experience, feeling positive emotions, motivation for learning, identification of self and the music they create (Lage-Gómez and Cremades-Andreu, 2021). The role of information and communication technologies in creating platforms for music education, the exchange of cultural values, the establishment of a prosperous social climate around the world and constructive interaction of various nations and ethnic traditions among themselves is also being studied (Fraser et al., 2021; Varii et al., 2020). The practical importance and significance of the interdisciplinary principle of mastering educational materials is noted, which allows students to be located informationally in one specific (possibly distant from us by time) epoch, with its inherent characteristics. Trainings and creative workshops also contribute to the successful realisation of a future specialist in the field of musical performance (Klimay, 2009).

Familiarisation with the fingering techniques of the 21st century is a necessary component of music education, in particular, the training of piano teachers according to A.N. Shadrin. The perception of exercises for the development of performing technique as a musical work of the didactic plan is highlighted by E.E. Kulikova. This creates a comprehensive basis for the professional growth of performers, including psychological, intellectual, and artistic development (Shaikhutdinov et al., 2018). At the same time, the problem of a comprehensive study of materials devoted to modern trends in music pedagogy in higher educational institutions and the disclosure of a panoramic picture of this phenomenon at the present time remains urgent.

CONCLUSIONS

In the process of collecting and analysing information on the teaching of musical disciplines in higher educational institutions, the fact of the volume and multi-vector nature of this phenomenon became obvious. This necessitated the definition and derivation of categories that form the basis of music education. The study of materials related to the topic under consideration allowed for the conclusion that such elements are: the co-creation of the composer and performer; deciphering the semantic models of the work;

comprehension of the author's style and ways of its implementation in the composition; study of the intonation-rhythmic structure of the composition; ideological understanding of improvisation as a phenomenon and creative process; projection of theoretical knowledge on performance practice (and vice versa); use of innovative technologies in the learning process; identification of ethnic, national understanding of the composition and its performance as part of spiritual culture (the way of its preservation and transmission to modern society); establishment of aesthetic and psychological foundations of concert performance; provision of conditions necessary for the preservation and further development of artistic culture of a high level; comprehension of the psychology of students, more broadly — musicians and interpreters; development of a base of pedagogical techniques in the approach to the training of the future concert performer; the vision of the professional orientation and personal constitution of students and stage artists in inseparable unity, as parts that complement each other; the need for the practice of creating creative collectives (from chamber ensembles to larger groups); monitoring the relationship between the cultural sphere (in particular, musical education) and the life of society in the study of the historical foundations of performing skills (the vision of the holistic context based on which the work and its style arose).

The study of the qualities and characteristics of each of them, in turn, turned out to be the foundation for the establishment of groups for the implementation of educational programmes. They have the following names: interdisciplinary group; pedagogical ideas and methods; spiritual, national, ethnocultural traditions; technological modernisation; research thinking. In general, the current trends of music pedagogy in higher educational institutions, as evidenced by the study, suggests the presence of such vectors of educational programmes as integration, theoretical, practical, and the vector of material and technical support. The presence of all the listed components of the educational process and their expansion, enrichment, due to the replenishment of new information and discoveries brought by time and the practical activities of representatives of music, in particular, performing arts, open up prospects for the preservation and progress of this area in the life of society.

REFERENCES

- Anđić, B., Cvjetićanin, S., Lavicza, Z., Maričić, M., Novović, T., & Stešević, D. (2021). Mobile and printed dichotomous keys in constructivist learning of biology in primary school. *Research in Science and Technological Education*, *39*(4), 393–420. https://doi.org/10.1080/02635143.2020.1763290
- Anđić, B., Kadić, S., Grujičić, R., & Malidžan, D. (2018). A comparative analysis of the attitudes of primary school students and teachers regarding the use of games in teaching. *IAFOR Journal of Education*, 6(2), 5–16. https://doi.org/10.22492/ije.6.2.01
- Belozub, L.M. (2014). The national aspect of Ukrainian musical art. Art History, 1, 116–122.
- Berkimbaev, K.M., Niyazova, G.Z., Kerimbaeva, B.T., Berdi, D.K., & Ernazarova, D.Z. (2013). The formation of information competence of future specialists As a factor of improvement of quality of preparation. *Life Science Journal*, *10*(SPEC. ISSUE 9), 198–202. https://doi.org/10.7537/marslsj1009s13.25
- Chmurzynska, M. (2009). Self-Efficacy of Piano Teachers of Specialized Music School. *ESCOM*. Retrieved from http://urn.fi/URN:NBN:fi:jyu-2009411237
- Clayton, M., Jakubowski, K., Eerola, T., & Keller, P. (2020). Interpersonal Entrainment in Music Performance. *Music Perception*, 38(2), 136–194. https://doi.org/10.1525/mp.2020.38.2.136
- Draper, G., & Dingle, G. (2021). "It's Not the Same": A Comparison of the Psychological Needs Satisfied by Musical Group Activities in Face to Face and Virtual Modes. *Frontiers in Psychology*, 12. http://dx.doi.org/10.3389/fpsyg.2021.646292
- Elmgren, H. (2021). Hindrances to recognition in Finnish music schools. *International Journal of Music Education*, 39(2), 202–217. https://doi.org/10.1177/0255761420986223
- Fraser, T., Crooke, A., & Davidson, J. (2021). "Music Has No Borders": An Exploratory Study of Audience Engagement with YouTube Music Broadcasts During COVID-19 Lockdown, 2020. *Frontiers in Psychology*, 12. http://dx.doi.org/10.3389/fpsyg.2021.643893

- Hesmondhalgh, D. (2021). Streaming's Effects on Music Culture: Old Anxieties and New Simplifications. *Cultural Sociology*, *16*(1), 174997552110199. http://dx.doi.org/10.1177/17499755211019974
- Jacoby, N., Margulis, E., Clayton, M., & Hannon, E. (2020). Cross-Cultural Work in Music Cognition: Challenges, Insights, and Recommendations. *Music Perception*, *37*(3), 185–195. http://dx.doi.org/10.1525/mp.2020.37.3.185
- Kim, I.S., Baizhanova, S.B., Kenzhibayeva, G.S., Makhmudova, M.A., & Kayumova, U.R. (2020a). Principles of designing modern clothing based on traditional Kazakh costume. *Izvestiya Vysshikh Uchebnykh Zavedenii, Seriya Teknologiya Tekstil'noi Promyshlennosti*, 387(3), 89–92. Retrieved from https://ttp.ivgpu.com/wp-content/uploads/2020/12/387_14.pdf
- Kim, I.S., Kenzhibayeva, G.S., Janpaizova, V.M., Kupenova, A.A., Dairabaeva, G.I., Esenbaeva, K.A., & Torebaev, B.P. (2020b). Features of developing a concept of industrial copyright collections as a way of creative self-realization for designers. *Izvestiya Vysshikh Uchebnykh Zavedenii, Seriya Teknologiya Tekstil'noi Promyshlennosti*, 388(4), 148–152. Retrieved from https://ttp.ivgpu.com/wp-content/uploads/2021/01/388_25.pdf
- Klimay, E. (2009). Modern trends in music education. *Higher Education in Russia*. Retrieved from https://cyberleninka.ru/article/n/sovremennye-tendentsii-v-muzykalnom-obrazovanii/viewer
- Kolomiets, G. (2021). Philosophy of Music in the Image of the World: From Antiquity to the Modern Time. *RUDN Journal of Philosophy*, 25(1), 139–155. https://doi.org/10.22363/2313-2302-2021-25-1-139-155
- Kuhn, W., & Hein, E. (2021). Future-proofing the Electronic Music School. In *Electronic Music School* (pp. 226–231). Oxford: Oxford University Press. https://doi.org/10.1093/oso/9780190076634.003.0012
- Lage-Gómez, C., & Cremades-Andreu, R. (2021). Group Identity in a Secondary School Classroom Constructed through Musical Creation. *Croatian Journal of Education*, 21(1), 35–61. http://dx.doi.org/10.15516/cje.v23i1.3824
- Maričić, M., Cvjetićanin, S., & Anđić, B. (2019). Teacher-demonstration and student hands-on experiments in teaching integrated sciences. *Journal of Baltic Science Education*, *18*(5), 768–779. https://doi.org/10.33225/jbse/19.18.768
- Mikhalyuk, A. (2020). Conceptual provisions of formation of performing culture of future teachers-musicians by means of Ukrainian piano art. *Educational Discourse*, 2(29). http://dx.doi.org/10.28925/2312-5829.2020.2
- Navarro, A. (2018). *Opening a new chapter in Music High Education*. http://dx.doi.org/10.21125/inted.2017.1765
- Nowak, R. (2016a). Consuming Music in the Digital Age. http://dx.doi.org/10.1057/9781137492562
- Nowak, R. (2016b). Music Listening Activities in the Digital Age: An Act of Cultural Participation through Adequate Music. *Leonardo Music Journal*, 26, 20–23. http://dx.doi.org/10.1162/LMJ_a_00961
- Nowak, R., & Bennett, A. (2020). Music Consumption and Technological Eclecticism: Investigating Generation Y's Adoption and Uses of Music Technologies. *Young*, 28(4), 110330881989617. https://doi.org/10.1177/1103308819896173
- Nugroho, A. (2021). Teacher's Creativity in Arranging Ensemble Music in Junior High School (SMP) In Purbalingga Regency. *Jurnal Seni Musik*, 10(1), 57–61. https://doi.org/10.15294/jsm.v10i1.46191
- Ortynskyy, V.L., Varii, M.Y., Ortynska, N.V., Humin, O.M., & Terletska, Y.M. (2018). Psychological and pedagogical foundations of quality activities of the teachers of legal disciplines in higher education institutions. *Utopia y Praxis Latino Americana*, 23(82), 34–50. https://doi.org/10.5281/zenodo.1495788
- Parikesit, G., & Kusumaningtyas, I. (2020). Musical acoustics education in Indonesia. *The Journal of the Acoustical Society of America*, 148(4), 2565–2565. https://doi.org/10.1121/1.5147119

- Sabljar, M., Opić, S., & Begić, J. (2020). Piano Teachers' Job Satisfaction in Music Schools in the Republic of Croatia. *Journal of Elementary Education*, *13*(4), 497–518. https://doi.org/10.18690/rei.13.4.497-518.2020
- Schäfer, K., Saarikallio, S., & Eerola, T. (2020). Music May Reduce Loneliness and Act as Social Surrogate for a Friend: Evidence from an Experimental Listening Study. *Music & Science*, 3(311), 205920432093570. https://doi.org/10.1177/2059204320935709
- Shaikhutdinov, R.R., Radynova, O.P., & Musorin, O.C. (2018). *Traditional approaches to improving the technique of playing the piano and their development at the present stage*. Musical art and education. Retrieved from https://cyberleninka.ru/article/n/traditsionnye-podhody-k-sovershenstvovaniyu-tehniki-igry-na-fortepiano-i-ih-razvitie-na-sovremennom-etape
- Sumarokova, V. (2019). *Composer's work as an object of performing musicology*. Retrieved from https://revolution.allbest.ru/music/01103681_0.html
- Syryatska, T.O. (2008). *Performing interpretation in the aspect of psychology of personality of a musician-artist*. Retrieved from https://otherreferats.allbest.ru/culture/00107023_0.html
- Talevski, V. (2006). *Music Theory and harmony in high music schools in Macedonia in 1940s-1960s*. Retrieved from https://www.researchgate.net/publication/265654361
- Terletska, Y.M. (2020). Fundamentals of psychic and emotional human deprivation. *Astra Salvensis*, pp. 751–771. Retrieved from https://astrasalvensis.eu/2020-2/#
- Utami, N., & Widjajantie, K. (2020). Faber Method Classical Piano Learning in Purwacaraka Music School Purwokerto. *Jurnal Seni Musik*, 9(1), 1–10. http://dx.doi.org/10.15294/jsm.v9i1.30417
- Varii, M.Y., Leshchynska, O.A., & Terletska, Y.M. (2020). Role of organisational culture of the university in formation of psychological readiness of students to assertive behaviour. *Journal of Intellectual Disability Diagnosis and Treatment*, 8(3), 497–504. https://doi.org/10.6000/2292-2598.2020.08.03.27
- Ward, F. (2019). Technology and the transmission of tradition: An exploration of the virtual pedagogies in the Online Academy of Irish Music. *Journal of Music Technology and Education*, 12(1), 5–23. https://doi.org/10.1386/jmte.12.1.5_1
- Zhang, P., & Sui, X. (2017). Application of Digital Music Technology in Music Pedagogy. *International Journal of Emerging Technologies in Learning*, 12(12), 4. https://doi.org/10.3991/ijet.v12i12.7966
- Zholaushievna, N.G., Abdrakhmanov, R., Adylbekova, E., & Danebekkyzy, K.G. (2022). Applying augmented and virtual reality in online and offline educaion. *Journal of Theoretical and Applied Information Technology*, *100*(8), 2528–2541. Retrieved from http://www.jatit.org/volumes/Vol100No8/14Vol100No8.pdf
- Zhou, Q., & Yan, B. (2017). Music Solfeggio Learning Platform Construction and Application. *International Journal of Emerging Technologies in Learning*, *12*(12), 14. https://doi.org/10.3991/ijet.v12i12.7968