Revista Românească pentru Educație Multidimensională
ISSN: 2066-7329 | e-ISSN: 2067-9270
Abstracting & Indexing | Web of Science (WOS); EBSCO; ERIH+; Google Scholar; Index Copernicus; Ideas RePeC; Econpapers; Socionet; CEEOL; Ulrich ProQuest; Cabell, Journalseek; Scipio; Philpapers; SHERPA/RoMEO repositories; KVK; WorldCat; CrossRef; CrossCheck

2022, Volume 14, Issue 2, pages: 198-217 | https://doi.org/10.18662/rrem/14.2/576
Submitted: December 20th, 2021 | *Accepted for publication:* February 14th, 2022

The Nature of and Conditions for Building the Poly-Art Competency in art Teaching Specialties

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Abstract: The relevance of the initiated research is determined by a few dominating challenges of modern art and pedagogical education. In particular, these are the interaction between the participants in the educational process, given the spread of the pandemic; insufficient development of ways to form the professional competence in students of art and pedagogical specialties; the inertia of art and pedagogical education and, as a consequence, the slow introduction of innovations in higher education; the insufficient reflection of the principles of poly-arts education in art and pedagogical studies.

The nature of poly-arts competence in specialists of art and pedagogical direction specialists has been redefined and adjusted. This competence is interpreted as an integral professional quality of personality. The methodical conditions of its formation have been outlined, embracing the updating of the educational process, use of interactive technologies and methods of personality-oriented learning, the introduction of integration of different levels, etc. Neuropedagogical prerequisites of formation of poly-artistic competence for students of art and pedagogical directions are defined. We have also identified interrelated and complementary aspects of poly-artistic competence (cognitive, reflexive, methodological and procedural), as well as directions of their development.

Prospects for further research lie with the development of the methodological formation of poly-artistic competence for students in art and pedagogical specialties and the subsequent testing of its effectiveness in an actual educational process.

Keywords: *Professional training, art and pedagogical education, improvement of the educational process, neuropedagogy, poly-artistic activity, integration.*

How to cite: Guseinova, L., Dvornyk, Y., Dorokhina, L., Koval, O., Lyashenko, T., & Khomenko, A. (2022). The Nature of and Conditions for Building the Poly-Art Competency in art Teaching Specialties. *Revista Românească pentru Educație Multidimensională, 14*(2), 198-217. https://doi.org/10.18662/rrem/14.2/576

Introduction

The dynamic development of society, science and culture, directly affects the goals and tasks of professional education. These robust changes facilitate the updating and upgrading of its content, introducing innovative pedagogical technologies in the educational process. As stated in the UNESCO Declaration (2015), one of the priorities of higher education institutions in the near future is to ensure the quality of training of future professionals.

The revolutionary technological and socio-cultural transformations change the requirements for professional training of future art and pedagogy specialists. To become competitive on the job market, the students are expected to build such professional and personal qualities as activity, initiative, flexibility of thinking, creativity and poly-artistic capabilities.

The contemporary education system has high demands for future specialists in art and pedagogical specialties. These demands are the natural product of the variety of means and methods of pedagogical influence on students, as well as the rapid development of artistic directions. A graduate of a higher education institution is expected to combine the features of an artist (in the relevant field of knowledge) and a teacher, which means they are supposed to effectively implement both the creative and pedagogical components of their professional activities. Along with that, we should remember that art is a powerful educational tool that has a significant impact on the consciousness and subconscious of students, their intellectual and emotional spheres.

To implement this task, it is necessary to shift the priorities in the training of future professionals in art and pedagogical specialties, placing the focus on the integration of learning, poly-arts, the formation of understanding of the value of each individual, and stimulating self-development.

Therefore, we have the following prerequisites for the initiated scientific research:

– The inconsistency between the rapid post-industrial development and the content of art and pedagogical education, which is based on the outdated methodological basis of industrial society;

– insufficient development of ways to facilitate poly-artistic competence of future art and pedagogy specialists.

It is the purpose of the present article to analyze the content of poly-artistic competence of art and pedagogical specialties students, as well

as to determine the features of its formation taking into account the modern requirements of neuropedagogy.

Challenges in contemporary art and pedagogical education

The higher education system and art and pedagogical education, in particular, have been experiencing groundbreaking changes and updates. One of the dominant culprits is, of course, the world-sweeping pandemic and the mass transition of higher education institutions to distance learning. The COVID pandemic has changed education forever. In particular, Savage et al. (2020), Odriozola-González, Planchuelo-Gómez, Irurtia and de Luis-García, R. (2020) emphasized the problems associated with the deterioration of the mental health of higher education students as a result of the transition towards remote learning. Grover et al. (2020) and Tang et al. (2020) argued that yet another dangerous factor we need to pay attention to is the harmful physical and living conditions of a certain category of students. Hamza, Ewing, Heath and Goldstein pointed to the emergence of social problems caused by complete isolation (2020).

Taking into consideration the specifics of professional training for future specialists in art and art teachers, the study of certain professional disciplines is severely limited by the new global pandemic restrictions. The bubbling negative emotions of isolation, anxiety and helplessness resulting from the lack of emotional presence and physical interaction have shown a negative impact on the students' academic performance (Hancock, 2001; Kusturica et al., 2019; Pekrun, Goetz, Frenzel, Barchfeld, & Perry, 2011).

However, we should also not neglect a silver lining. In particular, Raymond, Jacob, E., Jacob, D. and Lyons (2016) suggest that distance learning format can offer certain advantages. For example, the combination of online and traditional learning for future design professionals increases the variety of methods of interaction between students and teachers, while also diversifying the learning process. Moreover, a blended (or hybrid) learning environment has been experimentally established to facilitate the development of critical thinking in the design students (Cho, J. Y., Cho, M.-H., & Kozinets, 2016; Fleischmann, 2018).

Another important factor we would like to draw the attention of the scientific community to is the influence of the social environment on the development of art and pedagogical education. The education content and teaching methods should be determined by the peculiarities of the progress of society and take into account existing trends. However, as we can see

from the analysis of the specialized training in art and pedagogical specialties in higher education institutions, the applied pedagogy technologies are hardly consistent with the level of social narrative regarding humanization of life, cultural bases of the educational process, globalization of world educational space, etc. This position is supported by McLean, Abbas and Ashwin (2017). According to scholars, educational programs are built on the transfer of a certain amount of knowledge and reproduction of pre-designed actions. It technically means that such notions as creative abilities and skills, self-improvement and self-realization students have to build outside their alma maters. Unfortunately, it also means that this approach can no longer satisfy the requirements of potential employers.

It should also be emphasized that the problems of poly-arts education and its relation to narrowly specialized art landmarks have not been sufficiently addressed by the pedagogy for art teachers. We agree with the opinion shared by Young and Muller (2016, pp. 91–92) that the renewal of higher education requires the optimal balance between tradition and innovation. Certain conservatism is objectively inherent in art education, ensuring the preservation and transfer of cultural heritage. However, without innovations in the system of higher education, the progressive development of art pedagogy is impossible.

It seems rational that the improvement of art and pedagogical education should be carried out systematically, taking into account the results of comparison between traditional approaches and innovative social conditions, the laws of functioning of art education as a poly-artistic socio-historical phenomenon.

Building upon the considerations above, we see it appropriate to analyze the peculiarities of the poly-artistic competence formation in students of art teaching specialties since it is a crucial aspect of the development of art and pedagogy education. The neuropedagogy foundations of this process are not to be neglected either. Building consistent methods of developing these competencies will create favorable environment for further progress in art teaching education in the context of the contemporary social requirements. In particular, it will enable us to predict the directions of updating the content of professional training taking into account the neuropedagogic aspects of this process. Moreover, it will be done with close collaboration with the stakeholders, which will guarantee the achievement of the desired result (Demchenko, 2021; Prots, 2021; Kosholap, 2021). This approach will build a model of higher education for

art and pedagogical specialties in compliance with the specific conditions of art education.

The nature of and conditions for building the poly-art competency in art teaching specialties

The improvement of modern higher art pedagogy education can be revolutionized through the implementation of the competence approach. According to M. Masol (2006, p. 248), this allows shifting the focus from the mechanical absorption of artistic information to the formation of a set of comprehensive scientific and professional competencies of future art specialists.

Within the pedagogy frames of reference, it is customary to view professional competence as a multicomponent notion that embraces professionalism, qualification, and natural abilities. Educational standards consider the formation of professional competence as the development of a certain integrated phenomenon on the basis of key professional competencies. The formation of professional competence of art and pedagogy specialists involves the acquisition of knowledge, skills and abilities in a particular field, mastery of artistic values and the development of creative talents, which will ensure the readiness of the specialist to conduct artistic and pedagogical activities.

L. Masol (2010, p. 14) proposed a multi-component structure of art competencies. It embraces personal (value-oriented, artistic-worldview, cultural), functional (musical, visual, theatrical, choreographic, etc.) interdisciplinary (aesthetic and humanitarian), meta-subject (information-cognitive, self-regulatory) and social (artistic-communicative and practical) competencies. She further explains that these types of competencies embody the integrity of educational achievements, while, at the same time, requiring special methods for diagnosing and forming the competence sphere of personality (Masol, 2010, p. 17).

We agree with the opinion of O. Smirnova (2008) that the competence of specialists in art pedagogy is not only the ability to operate their knowledge but also the ability to analyze the innovative information in the art sphere, and effectively interact with children in an art discipline class.

Thus, the professional and pedagogical competence of students in art pedagogy specialties embraces their competence in the field of art (according to the direction of training), pedagogical knowledge and skills,

and, which is no less important, methodological and the psychological maturity and readiness of a future specialist to actually conduct a class.

Foreign publications also contain some insights and practices regarding the formation of the professional competence of art pedagogy students. In particular, the specific features of art education are reflected in the publications by Bamford (2006), Caldwell and Vaughan (2012). Efland (1990) analyzes the historical stages of art education, while Eisner (2002) concentrates on the current state and prospects of the professional art training.

Yorgancıoglu and Tunalı (2020) provided explanation for the best practices in terms of building effective training for the design specialists. The scientists emphasized the necessity to change the classic role and function of a teacher along with the way they communicate with students. What is peculiar here is that a student now should have a bigger, more active role in the study process than they ever had. Students now are expected to not only perceive information supplied by the teacher or textbooks but assume an active position in the learning process. Hasselskog (2010) and Lindström (2012) insist on teaching students innovative ways of thinking and solving problems through the development of creative abilities that would go beyond the generally accepted framework in a particular field of art.

According to Muller (2006) and Winch (2013), there is a strong rationale behind building educational programs for art specialties on certain key objects, events, states and processes, while the rest of the content should provide individual creative development of the student. According to Beck (2002), art education should adequately respond to the changing demands of the labor market, providing students with the desired services and shaping their creative abilities.

The need to introduce a poly-art approach in the training of art and pedagogy specialties is justified by the fact that art in the educational process of secondary and higher school is represented by a number of subjects that are basically outside systematic performance monitoring. For example, the art training curriculum includes drawing, painting, graphics, plastic arts, design, etc. Cunliffe (2008) and Szpakowski (2018) believe it leads to limited artistic thinking and prevents the natural formation of the artistic culture of the individual and their wholesome worldview. Integration in the field of art enables comparing different art styles and directions, developing associative thinking, and expanding the range of artistic and aesthetic competencies.

P. Volkova (1999) views the versatility of the art teaching culture of a future specialist to be represented by the urge to master all possible forms of integration. This is exactly what we call a poly-art activity that enables understanding where different styles come from and what the origins of different types of art directions are. Together, these factors help form basic ideas and skills in each form of art.

G. Yermolenko recognizes the poly-art competency as a component of professional competence of the future teacher of fine arts and characterizes it as a professional integrative quality of personality, which includes a comprehensive knowledge about the interaction of arts, ability to transfer an artistic image or a figure to another modality, and experience in poly-arts project activity integrated through the comparison of artistic ideas, images, phenomena, and objects.

In our opinion, this interpretation is not particularly felicitous, as the meaning of the "poly-art competence" concept is defined through the concept of "poly-artistic project activity". We believe, a more effective way to interpret poly-arts competency is through the nature of the “poly-artistry” that embraces the ability of polyphonic perception and reflection of art images. It expands beyond one art giving the ability to realize and express reality or a certain phenomenon in different artistic ways: color, sound, plasticity, rhythm, movement, word, or symbol.

O. Bobliyenko (2013, p. 8) has characterized the nature of poly-artistic competence of the future music teacher. The researcher interprets it as an ability to use the acquired professional knowledge, mastery of algorithms for solving musical and pedagogical problems and professional performance skills and build a learning process as a personality-oriented systematic involvement of students in various arts within an interactive framework. As a result, we witness the formation of poly-artistic consciousness and creative self-realization of the student's personality.

Alipour (2020) emphasized the need to develop the poly-arts competence of future design professionals. She considers the organization of various workshops based on the idea of poly-art incredibly promising. Moreover, the scientist conducted a pedagogical experiment, and the results of the proposed innovations proved their effectiveness in the real educational process.

B. Yusov (2004) sees the poly-arts approach within the framework of the higher education establishment as the synthesis of music, painting and

poetry. He also focuses on the complex philosophical problems of their relationship.

With the view of the considerations outlined above, we interpret the poly-artistic competence of art and pedagogy students as an integral professional quality of personality formed by a combination of theoretical and practical training in various arts (musical, theatrical, visual, choreographic, etc.) in their interaction with professional pedagogic activity, creative self-realization and aesthetic self-improvement.

Thus, we can see that the poly-art competency is a structural element of the professional competence in terms of the art and pedagogy students of the higher education institutions. It is an integral part of any domain they would like to pursue, be it research, teaching or art (e.g. art project management).

The analysis of the psychological and pedagogical literature implies that the formation of poly-artistic competency in higher education students of art and pedagogy specialties, involves:

– acquisition of knowledge about ways to comprehend the content of works of art (music, art, art, etc.);

– development of analytical and interpretation skills sufficient for work with art pieces created in different artistic material and different artistic systems;

– formation of sense of purpose in research endeavors of future art and pedagogy specialists;

– encouragement of art and pedagogy students' self-educational activity;

– formation of skills for poly-artistic professional activity.

Given the content and features of poly-artistic competence of specialists in art and pedagogical specialties, as well as the requirements of competence-based methodological approach in higher education, we consider it appropriate to outline the following methodological conditions for its formation:

– reformation of the learning process in higher education applying a poly-arts approach, which should both be manifested in individual disciplines and be subject to the general logic of professional training. The implementation involves the creation of a poly-artistic educational environment in which a certain art form (according to the educational program) is the subject-spatial basis;

– the use of interactive technologies and personality-oriented learning methods in professional training of future specialists in art and pedagogical specialties. Poly-artistry implies the integration of different arts with different types of artistic activity in art and pedagogical education. This is not a replacement for traditional academic art classes, but the creation of new conditions for classes in the integration space. Feast and Vogels (2021) emphasized the pivotal role of personality-oriented techniques in the professional training of future art and pedagogy specialists. The scientists conducted a pedagogy experimental study to put the hypotheses to the test in several New Zealand universities, introducing pedagogical innovations in the training of art, design and communication professionals;

– project activity. A project-based poly-arts approach promotes a comprehensive acquaintance with different arts. It provides a reasonable choice of project topics, appropriate methodological support and systematic control and monitoring of student activities. The peculiarities of project technology implementation in higher education are elaborated on in the publication by S. Dembitska and I. Kobylyanska (2016). Working on projects, students of art and pedagogical specialties have the opportunity to master the algorithm of design and educational activities, acquire skills of independent research and analysis of information in the field of art, and learn to apply the acquired knowledge and skills in practice. In other words, students develop the qualities necessary for the future professional activity (creative imagination, artistic taste, combination of visual and logical thinking), while also forming a set of special abilities related to different areas of artistic activity (music, literature, performing arts, etc.)

– integration of different levels in the process of professional art and pedagogy training. It can be the integration within a single discipline (analysis of literature, history, mythology, or even political topics in painting or design), interdisciplinary integration (computer technology in art), development and implementation of special courses, interdisciplinary debates, seminars, conferences, etc. The importance of integrative teaching methods in design education is substantiated in the Perold-Bull study (2020). He analyzed the results of integrating the creative game with representative media, such as text and layout design;

– study of the essential features of national culture in the context of the world, the combination of national, regional and universal components of art education.

The conceptual idea of updating art and pedagogical education on the basis of a poly-artistic approach is to ensure the holistic artistic and aesthetic development of the individual through the interaction of different arts and the relevant coordination of knowledge, skills and ideas. They are meant to form a poly-artistic and multicultural image of the world in the minds of art and pedagogy students.

The process of updating higher art pedagogy education in the context of the poly-artistic approach involves a dialogue, humanization of educational space, optimization of poly-artistic activities as well as encouragement towards self-education. Ensuring the effectiveness of the outlined methodological provisions is possible by taking into account the neuropedagogical requirements for the training of future professionals.

Neuropedagogical bases of formation of poly-artistic competence in future art and pedagogy specialists

At the beginning of the 21st century, the scientific community took a great interest in neurosciences. The interdisciplinary studies of the brain have contributed to the emergence of a new branch of pedagogical science, known as neuropedagogy, which studies the features of educational processes, taking into account neuropsychological data on the brain function and central nervous system. This science relies on the research and analysis of cognitive neurology, differential psychophysiology, genetics, cybernetics, and sociology. It allows determining the effective ways of learning depending on the mental processes of all participants in the educational process, psycho-emotional and personal characteristics of their thinking and consciousness (Moskvin, Moskvina, 1997). According to V. Astapov (2010), the purpose of neuropedagogy is to find optimal solutions for creative pedagogical tasks. Relying on the information about the patterns of mental processes, neuropedagogy allows designing an educational process taking into account individual neuropsychological characteristics of the people involved and, as a consequence, optimizing the process of students' intellectual, creative, and professional development. (Podliniayev, Mornov, 2015, p. 127).

The education process structure features certain completeness of the procedure, as we always keep the result in our mind (Orlov, 2001, p. 93). However, educational and cognitive processes are not limited to a clearly defined framework or certain academic achievements of students. Further, they proceed with the formation of the foundation for future interaction of

the educational process agents by means of certain pedagogical technologies. As a result of such interaction, students of art and pedagogical specialties acquire and accumulate knowledge and form their attitude to the research material in accordance with their own subjective experience, worldview and value perception of the world.

All these aspects are reflected in the concept of "professional competence". The introduction of a competence-based approach in the field of art and pedagogical education involves the training of specialists of the new formation and is aimed at forming the readiness to enter the job market. Professional competence of art and pedagogy specialists is a pedagogical phenomenon determined by the peculiarities of artistic creativity, the originality of its tasks, the predominance of artistic and creative forms of practical work and specific methods of art education.

Analysis of scientific sources showed that the idea of a poly-artistic approach is based on a combination of different arts. Art is a multidimensional and sophisticated concept, so, naturally, at the beginning of the 21st century, we began to seek an integrated approach to the study of this phenomenon. The interaction of different types of art gave rise to new artistic directions.

Leaning on a neuropedagogical approach, Mason & Steers (2006) identify the following important areas in art and design education: conceptual, productive, critical, and contextual areas. Scholars emphasize that contemporary higher education is aimed at a productive sphere that impoverishes art education in general. Therefore, appropriate changes in the organization of the educational process are necessary.

In the previous section, we found that poly-artistic competence is a complex integral aspect of personality and involves mastering different ways of artistic activity. Moreover, the formation of this competence involves interpersonal skills, self-knowledge, mastery of knowledge about art and information space, operating skills of integration of different ideas and creating a new vision of a work of art based on variation and combination of existing interpretations.

Summarizing the analysis of the research articles covering the current topic and the results of our scientific research, we will outline the necessary neuropedagogical conditions for the poly-artistic competence formation in art and pedagogy students:

1. The possibility of poly-artistry formation in art and pedagogy students is predetermined by the ability of the brain to multitask. To ensure

the effectiveness of this process, it is advisable to use different types of content and forms of educational and cognitive activities as well as innovative learning technologies. The educational technologies that positively influence the formation of students' poly-artistic competence have been characterized in the previous subsection.

2. Learning and cognition are the two powerful mechanisms of brain development. Therefore, to form poly-artistic competence, it is necessary to create a favorable environment that would encourage students to learn the worldview and methodological foundations of art. The future specialist is expected to form sufficient competencies in various fields of art. This will expand their professional functions, promote poly-artistic skills, and develop thinking and creativity.

3. Reliance on existing experience and the establishment of patterns as an innate characteristic of human consciousness. Understanding and conceptualization of new information happen as a result of establishing a relationship between existing knowledge and skills and new information. Therefore, mastering any theory involves reflection of previous experience, intensification of cognitive activities in students. This will not only allow the teacher and students to cooperate effectively in the learning process but also in the future, to transfer the methods of activating attention to future pedagogical activities.

4. Taking into account the influence of emotions on learning outcomes. Material that evokes certain emotions is better remembered. In the process of formation of poly-artistic competency, the emotional factor is one of the leading ones because any art is emotional in content and always operates with sensually specific images. A work of art is an expression of its author's spirituality, feelings and emotions.

5. Taking into account the individual characteristics of the human brain (the volume and speed of information it is capable of processing, the predominance of certain memory aspects, the flexibility of mental processes). With this in mind, we can say that formation of poly-artistic competence in art and pedagogy students is possible through the independent learning, construction of its individual educational and creative trajectory.

6. Taking into account the ability of the brain to simultaneously analyze and synthesize information, to operate with the whole and its part. Accordingly, the training material should be presented in the mode of constant interaction between the whole and a partial, analysis and synthesis,

induction and deduction, direct and inverse methods, concretization and generalization.

7. Brain development is stimulated in the conditions of creative freedom whereas any pressure, coercion or threat impedes it. This aspect indicates the need to ensure the development of the creative abilities of students in art and pedagogical specialties. This idea finds reinforcement in the results of the research endeavors by Robinson (2011), Young and Lambert (2014). The researchers emphasized that educational programs in the field of art are a reproductive model of knowledge, where students only imitate artistic practice, following the instructions of the teacher, but do not have the authority to make independent, critical decisions. Unfortunately, the creativity development in art students is still neglected, which hurts the formation of their professional competence in general.

8. It is most reasonable to develop the poly-artistic competence in art and pedagogy students when guided by such interconnected and complementary aspects as cognitive, reflexive, methodical and procedural.

The cognitive aspect of the formation of poly-artistic competence in future art and pedagogy specialists forms a theoretical basis, which is the system of psychological, pedagogical and artistic knowledge. According to Kirschner, Sweller and Clark (2006), the results of such training should form poly-artistic images in long-term memory. According to Rutherford (2020), training will be more effective if the learning material has minor stimulating difficulties in the so-called immediate development zone of the student. In her publication, the scientist described the concept of the desired level of complexity and explored it in the design specialist training program. We also consider the position expressed by Willingham (2009) interesting. He argues that in terms of the cognitive aspect, knowledge and skills are partners and that attempts to teach skills without knowledge will be unsuccessful because they contradict the principles of the human brain.

In their research pursuits, Readman and Moon (2020) insist on the significance of the development of critical thinking and reflection in the process of professional training of future specialists in art specialties. The authors propose four models of different levels of critical reflective writing, which can be utilized in the training of future professionals. Similar ideas are found in the research done by Paz and Caetano (2020). However, the scientists emphasize the need to develop reflection in teachers as well. The professional growth of a teacher should go hand in hand with the development of students in the process of their professional training. This

approach allows teachers to remain progressive in a rapidly changing environment.

Methodical training should be aimed at the formation of professionally significant skills and abilities in students, their readiness for professional activity on the basis of a poly-artistic approach. We see conducting masterclasses and workshops by the leading specialists in different types of educational institutions as promising in this direction.

The procedure of the formation of poly-artistic competence of art and pedagogy students involves the application of students' acquired theoretical knowledge in the process of educational and professional activities, purposeful educational work during internship and industry-based projects, and immersion of students in creative extracurricular poly-art activities.

Conclusion

The idea of poly-artistic competency can be traced back to the 20th century, but today the relevance of this area is gaining the attention of the leading specialists in the relevant fields who emphasize the need in the formation of professional competence of future art and pedagogy professionals. The poly-artistic approach gives the chance to consider the features of modern culture in professional training in art and pedagogy specialties since it enables the interaction of various kinds of art.

Modernization of higher artistic and pedagogical education preconditions a radical change in the requirements for graduates, in particular, the need for the formation of professional competence and personality traits necessary for future professional activity. We arrived at a conclusion that the poly-artistic approach will allow students to synthesize a set of knowledge, skills, and abilities in various fields of art, which will help them to develop creative and multifaceted personalities.

The phenomenon of poly-artistic competence is defined as an integral professional quality of personality, formed through the development of cognitive, reflexive, methodological and procedural aspects. Poly-artistic competence of art and pedagogical specialties students is the result of a holistic perspective of the multidimensional world of art, mastering knowledge and skills through integrated artistic and creative activities. In other words, it is the product of the development of each student, the summit of a student's personal experience.

Prospects for further study of the topic under consideration are possible with the development of the relevant methodological guidance for the formation of poly-artistic competence in students of art and pedagogical specialties, as well as testing its effectiveness in an actual educational process.

Acknowledgement

Authors of the article: Larysa GUSEINOVA, Yurii DVORNYK, Liubov DOROKHINA, Olena KOVAL, Tatiana LYASHENKO, Alla KHOMENKO - confirm their contribution in the following positions: documentation, data collection, data processing, written text, other activities that are related to the research.

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