

Neuropedagogy as an Aspect of Developing Spiritual Culture in the Context of Vocal Music

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Abstract: *Music education significantly influences personality development and considers self-expression, self-realization and self-actualization as critical sociocultural and pedagogical tasks. This article aims to explore theoretical and practical aspects of vocal art's influence on nurturing one's spiritual culture within educational activities, viewed through the prism of neuropedagogy. It addresses challenges in applying psycho-pedagogical techniques of neuropedagogy in vocal education for competency development. The main focus of the study lies in the methodological underpinnings of neuropedagogy and its impact on overall personal development. Various methods, including explanatory and descriptive ones, analysis and deduction, were used to determine the purpose of the article. The findings are not comprehensive. However, they provide a foundation for asserting that the need for social grouping leads to tensions where the pursuit of the common good for a specific social group may conflict with the concept of individual well-being. This dynamic is particularly relevant in the context of neuropedagogy. The article concludes that understanding the role of vocal music education is crucial for personality development as it is related to neuropedagogy.*

Keywords: *vocal expressiveness; vocal training; vocal mechanism; tradition; neuropedagogical aspect.*

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Introduction

A defining feature of today's spiritual life is the expansion of vocal practice and related musical pedagogy. This evolution has led to current vocal performances incorporating Ukrainian art into international standards and enhancing technical aspects of music performance. The global tradition and experience in vocal performance guide singers to adhere to established vocal techniques, revealing the expressive and intonational elements of vocal works.

Art, having no boundaries, integrates effectively into global society, impacting human consciousness (Botume, 2010; Nerubasska & Maksymchuk, 2020; Nerubasska et al., 2020). The Internet, as a globalization and cultural integration factor, shapes societal value orientations (Nakkach et al., 2012). Today, many children lack moral guidance, emphasizing the need for ethical and spiritual cultural development (David & LaTour, 2012). The global community must foster values through cultural development (Murray, 2009). Childhood lays the foundation for value perception, essential for societal living. Numerous scholars and educators have addressed art and art education issues (Paton, 2006; Schmidt & Goller, 2016). While music education is recognized as value-oriented, detailed interpretation in the context of vocal art is needed (Sadolin, 2000).

To address these challenges, the concepts of “art” and “education” were explored, with classical pedagogy viewing education as crucial for personal development and societal significance.

Morality encompasses spiritual qualities that guide societal behaviour. It develops through artistic world perception, allowing individuals to act based on personal understanding rather than mere adherence to norms. Value education involves recognizing responsibility and discerning reasonable actions in one's environment. A detailed analysis of relevant sources has made it possible to define the concept of “values education”, emphasizing vocal art's role in developing spiritual and moral qualities, distinguishing good from evil and appreciating beauty in art and life.

Vocal art, as a dynamic and evolving field, is pivotal in moral and spiritual education. Neuropedagogy offers practical methods for integrating vocal education into developing educational competencies, focusing on behavioural values and morality.

Vocal art is a dynamic and evolving artistic phenomenon within musical creativity, with its progression shaping the direction of singing. Today, music pedagogy has made significant advancements in understanding

the development of vocal and choral abilities in students. Researchers have explored various aspects of vocal and choral training for future music teachers and singers, including vocal techniques from a professional and performance perspective and methods of vocal and choral work (Antoniuk, 2007).

The primary goal of neuropedagogy is to investigate the brain's role in human mental activity, particularly concerning the perception, retention, processing and generation of information and experiences. This involves constructing an educational system that optimally considers individual neurological characteristics (neuropsychological profile). These characteristics include a) individual lateral profile of students (functional asymmetry of the cerebral hemispheres, involving the distribution of mental functions between the left and right hemispheres); b) gender and gender differences; c) a dominant type of temperament; d) primary sensory channel for perception and information processing; e) patterns of activity and levels of higher mental functions that support intellectual and creative activities, communication and self-regulation in developing vocal skills (attention, memory, thinking, imagination, speech, emotions and volition) (Antoniuk, 2007).

These characteristics significantly impact not only the learning process and the enhancement of motor abilities and skills but also decision-making processes and the approach to using vocal teaching aids. The effectiveness of employing physical force in vocal training depends on the development of motor skills, the ability to assess situations promptly and accurately, the appropriate application of musical skills, as well as one's traits and readiness to perform under extreme conditions.

Neuropedagogy as an aspect of developing spiritual culture in the context of vocal music

In developing musical art skills, teachers must use various methods and techniques to enhance motor actions, particularly in vocal art. Rapidly changing motor tasks, combined with a high emotional component in performing certain exercises, can significantly improve the effectiveness of the educational process. Employing technical teaching aids, video visualization tools, simulation elements and practical activities is crucial in this aspect. For fostering musical qualities, the most effective methods involve improving motor skills along with professionally important physical qualities.

When examining the differences in predominant thinking types between women and men, the distribution for women is the following:

visual-figurative (45%), verbal-logical (32%), objective-active (23%) and abstract-symbolic (0%). For young men, it is objective-active (40%), verbal-logical (40%), visual-figurative (20%) and abstract-symbolic (0%).

The effectiveness of the neuropsychological process depends on recognizing the features of the nervous system, particularly adaptation processes. In developing motor actions, female employees should use segmented and integral training methods. Breaking down movements into parts and gradually learning individual phases should facilitate the comprehensive assimilation of the action. Instructional, imitative, standard, simplified and complex exercises, along with tasks that incite curiosity and novelty, are employed to form motor actions. Given that a motor action involves performing a motor task, students should be engaged in the educational process during this skill development.

To activate and train brain processes, it is essential to update the tasks and exercises regularly. The brain will create new schemes and pathways as it tackles updated tasks and exercises. This will lead to the creation of new patterns, positions, themes and movements, enhancing muscle-motor, vestibular, tactile, organic and other sensations.

The speed of performing and managing actions is directly linked to that of brain activity and nervous processes. The quicker the brain processes information, the faster a response can be generated, leading to the automated management of coordination mechanisms. This transition allows a motor action to evolve into a skill (Straub et al., 2019).

The brain's activity increases progressively with new demands, tasks, skills and knowledge acquisition, as well as planning. During the development of motor actions, the brain is actively engaged in both planning and performing movements.

The human brain can adapt and create new connections through new experiences due to neuroplasticity. This quality influences adaptive processes for acquiring new skills and contributes to overall life changes. Constant effort leads to learning new things, gaining experience and fostering a growth mindset. By learning new motor actions, students force the brain to focus on complex systems, enhancing its learning capacity. Regular physical and motor activity is essential for developing neuroplasticity. The brain is a unique organ with individual characteristics, memory systems, as well as the speed and flexibility of thought processes. Its development is stimulated by free creative activity, the absence of stress and overstrain and the mastery of new skills and sciences.

An important indicator of musical training is the focus on teaching motor actions and developing abilities and skills directly related to

professional activities. The main principles of neuropedagogy include learning meaningfulness, training timeliness, sequence and appropriateness of influences on the developmental and functional aspects of the educational process and, finally, the management of activities (Shiner, 2019).

Neuroeducation is crucial for teachers as it enhances the effectiveness of the educational process through an understanding of the brain's structure and its capabilities to remember, process, record, store and retrieve information. It is teachers who can influence brain development, the emotional sphere, learning methods and styles, create a favourable learning environment (kindness, diversity, music), as well as provide feedback.

Vocal art as a factor in one's spiritual development

The problem of vocal art is rather complex and multifaceted, attracting the attention of researchers from various scientific disciplines. In particular, Antoniuk (2007), Anishchenko (2014) and Priadko (2010) have explored vocal art from both theoretical and practical perspectives in the context of voice physiology. Billington (2017) has focused on the vocal sound of ensembles. Other researchers, including Antoniuk (2007), Botume (2010), Hnyd (1997), Hopka (2013), Onyshchuk & Smetana (2014), Paton (2006) and Ware (1997), have also contributed to this field.

The musical culture of the last third of the 20th century is a complex phenomenon characterized by diversity, constant variability and eclecticism. The emergence of new forms, genres, styles and movements in music indicates significant shifts in musical thinking, introducing new layers of content to the art of this period. In musicology, numerous fundamental studies in music theory and history have focused on understanding the phenomenon of this era's musical culture. Philosophical and aesthetic foundations such as the deconstruction ideas of French poststructuralists, the post-Freudian language of the unconscious and schizoanalysis have influenced musical art. This issue has been explored by foreign scholars such as Murray (2009), Schmidt & Goller (2016), Surmani et al. (1998).

Another important aspect of musical education is the stimulation of mental development. Additionally, emotional education, which continues to evolve, plays a critical role. This aspect has been investigated by researchers such as David & LaTour (2012), Nakkach et al. (2012), Sadolin (2000). Consequently, it is essential to consider the processes occurring in musical culture as part of broader artistic developments. In a broad sense, musical culture is perceived as a philosophical concept characteristic of the era at the turn of the 20th and 21st centuries, reflecting a unique artistic mindset. It also

represents a historical period of artistic creativity that unites various movements of the late 20th century.

One factor contributing to the lack of developed musical and aesthetic taste is the insufficient exposure to highly artistic examples of national and world vocal and performing culture in the mass media. As Sukhomlynska (2015) notes, studying the musical abilities of children within the context of educational goals is crucial, along with maintaining good health, monitoring the singing environment and preventing illnesses. Therefore, working with a professional in the music industry is key to musical performance (Sukhomlynskyi, 2012). The most important factor, then, is the involvement of specialists in music education (Blakemore et al., 2006).

Addressing this issue involves mastering highly artistic examples of musical creativity and acquiring special historical and theoretical knowledge, which contribute to cultivating a high-performing culture in future music teachers. This requires educators to continually improve the educational process to meet current standards. Professional attention is vital in the training of performers. The educational criteria for developing vocal skills are based on mastering vocal techniques and singing skills (Antoniuk, 2007).

In society, there is a profound need for spiritual life and faith. The religious theme has transcended being merely a subject of specific compositions to becoming a central element of artists' worldviews (Caine & Caine, 2010). This need may stem from the origins of artistic thought, which is fundamentally rooted in a spiritual worldview. The revival of spiritual themes in the Ukrainian musical culture of the last third of the 20th century reflects an anthropocentric focus, highlighting themes of human existence and the meaning of life. These questions become central in the musical compositions of this historical period.

Developing one's personality through vocal art training

The Ukrainian vocal school has gained extensive experience in developing and refining the singing voice, characterized by originality and innovation. This process begins with the initial assessment of a beginner's musical abilities. The primary focus is on enhancing the effectiveness of the educational process. Even though there are many achievements in this field, research on sonority often remains fragmented, reflecting the intricate nature of vocal art.

Vocal training should aim to implement and enhance the content characteristics of the activity, emphasizing its significance and impact on the emotional and value-oriented aspects of the learning process. The principles

of neuropedagogy guide teachers to develop new pedagogical technologies based on understanding and applying different types of thinking. This approach supports the adaptation of applied technologies, tools and teaching methods to students' capabilities rather than their intellectual level, thus liberating the bodily-motor and spiritual-mental components of the body.

Therefore, the latest educational technologies in the development of musical art must be designed with consideration of the brain's organizational activity and its functional asymmetry.

It is also crucial to highlight gender-specific differences in thinking and perception. Women tend to combine logic and intuition, whereas men typically employ logic and intuition separately. Women often rely on their intuition, while men are guided by common sense and logic. Women think and feel simultaneously, and men keep these processes distinct. Men's intelligence is characterized by solving problems one at a time, demonstrating consistency. At the same time, women tend to address multiple issues simultaneously, showcasing their versatility. Male thinking primarily reacts to external stimuli, with decisions being logical and balanced. In contrast, women's thinking processes are influenced by the cerebral cortex regions responsible for speech, movement control and emotions, resulting in logic that is often intertwined with emotions and gestures. Women also possess strong memory and rapid thinking abilities. In terms of assessment methods, men focus on prioritizing to avoid missing crucial details, and women quickly switch between tasks (Chournazidi, 2016).

When considering vocal art as a form of creativity, it is evident that the singing voice is universal. Proper pronunciation reveals one's multifaceted qualities. Music fosters mobility, aesthetic and cognitive functions. However, the latest technologies often provide information rather than knowledge, leading to minimal development of the inner world. Human communication is increasingly replaced by the Internet, television and computers. The large amount of harmful information diminishes individuality and personal qualities, undermining independent thinking and creativity and eroding qualities such as compassion and mercy. Understanding morality and spiritual culture is essential for the proper development of personal qualities.

Personal values are nurtured within the family and smaller social groups, serving as a foundational aspect of one's spiritual and moral development, which is cultivated through education. The interaction with parents plays a significant role in the comprehensive development of personality, highlighting the undeniable influence of the family in this process. Families provide the initial education, fostering deep spiritual

qualities and preparing individuals for societal engagement. Proper spiritual and moral development is established from an early age, a concern that has preoccupied many scholars. The groundwork for spirituality is laid in childhood (Eagleton, 2015).

The process of engaging with artistic works is enriched by life experiences and the accumulation of knowledge. One's emotional landscape is continuously expanded, enabling them to learn how to manage their emotions (Jensen & McConchie, 2020). Musical art, with its inherent versatility, deepens this understanding. The capacity to respond emotionally to music fosters one's various qualities. Classical musical works, in particular, offer substantial potential for an in-depth exploration of musical fundamentals. For instance, the recognition of familiar melodies results in positive emotions. In broad terms, the distinction lies in that light music primarily serves functional purposes and can accompany numerous non-musical activities, whereas serious music is perceived as having intrinsic value (Comenius, 2020).

Despite existing research on children's musical education, the issue of spiritual and moral education remains inadequately addressed. Traditional music lessons tend to focus on practical aspects, which often do not fully engage with the artistic dimension. Thus, there is a need for improved technical resources and a musical repertoire that adheres to criteria such as artistry, accessibility and appropriateness (Shen et al., 2021).

The development of musical culture in children is fostered through the selection of classical musical works, which serve as standards of beauty and shape the content of musical education. This involves revising the approach to studying the repertoire to create a flexible, adaptive model for systematizing musical works based on principles such as thematic organization, concentricity, contrasting juxtaposition, syncretism and adaptability. Such an approach is expected to stimulate interest in musical art.

A cyclic and consistent repertoire allows selecting appropriate music for various events and supports a continuous, comprehensive music-educational process. This approach helps teachers meet educational objectives by integrating all types of activities within music lessons, thereby broadening students' exposure to the world of art. By employing contrasting methods and diverse class formats one can enhance students' appreciation for cultural heritage.

From a psycho-pedagogical perspective, musical perception involves the reflection and formation of a musical image within the child's aesthetic consciousness. This includes the emotional and evaluative experience of a

musical work and its moral and aesthetic qualities. The content and objectives of the musical process shape the primary orientations of the musical repertoire. For example, classical music enhances musical hearing, memory and taste, and its structured nature contributes to the development of spiritual and moral values.

The pedagogical system grounded in the works of distinguished classical composers must be tailored to one's musical perception. The music selected should resonate with the child's emotional experiences, taking into account factors such as the narrative of the piece, its emotional content and the duration of sound. Overall, the work should evoke emotional engagement while maintaining clarity.

Conclusions

The article studies the problem of developing one's spiritual culture and moral values in the context of neuropedagogy. The problem in question is relevant due to the need to reinforce the foundational aspects of organizing the educational process, particularly in musical art.

As is known, the role of music in today's society extends beyond mere functionality and is not limited to specific narrow fields. Music, as part of the broader sphere of art, holds a significant place in societal life. Musical images and themes engage many composers, while their works profoundly influence people's perceptions of the world. Additionally, compositions that were once integral to spiritual rites have transitioned to independent concert pieces, are regarded as works of art and are studied in art history.

However, the natural variety and specificity of vocal art make it a unique phenomenon of human culture, significantly influencing the development of one's spiritual culture. This uniqueness is evident in the powerful impact musical art has on people, making it one of the most effective forms of influence. Thus, when considering music as an element of art, one must remember its profound content that speaks to the greatest and most beautiful aspects of the human soul.

This article examines the impact of musical, particularly vocal, art in the educational process as a neuropedagogical aspect. An in-depth study of this influence enables individuals to feel connected to their heritage and creatively reinterpret the spiritual and artistic traditions of human life. Consequently, vocal art is a vital means of forming a creative personality in a broad sense, namely, encompassing not only the "technological" process of creating new works but also the intimate and personal aspects of experiencing and relating to life in new ways.

Accordingly, the following conclusions were formulated:

1. The application of psycho-pedagogical technologies from neuropedagogy in music education should foster the development of all aspects of personality. This will, in turn, enhance the cultivation of educational competencies and the effective acquisition of vocal skills. Neuroeducation is essential for all participants in the educational process.

2. The study identified several neuropsychological features (neuropsychological profile) that significantly influence the effectiveness of the educational process: a) the individual lateral profile of students (functional asymmetry of the cerebral hemispheres, indicating the distribution of mental activity functions between the left and right hemispheres); b) gender and gender differences; c) a dominant type of temperament; d) primary sensory channel for perception and information processing; e) the patterns of activity and levels of higher mental functions that support intellectual and creative activity, communication and self-regulation (attention, memory, thinking, imagination, speech, emotions and volition).

3. The neuropedagogical educational process should be effective if several nervous system properties are observed and implemented. These include adaptation processes, curiosity and novelty, speed of performance and management of actions, variability and mobility, planning, neuroplasticity and completeness.

At the same time, the main challenge in recognizing the role of music in education lies in its unique characteristics. The first feature of music is its intrinsic nature as it becomes relatable and understandable due to its similarity to the intonation of human speech. The second feature is that music serves as a special language of human communication. Even though it cannot reflect or depict individual objects or phenomena, it can vividly convey human experiences, inner feelings, as well as emotional and psychological states. The third feature is the profound and powerful emotional impact of music, not only on moral and aesthetic levels but also on psychological and physiological levels. Thus, musical art is a crucial factor in the educational process and a significant aspect of neuropedagogy.

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Author 1 analyzed various scientific works on the problem of personality education through vocal art and systematized the main psycho-pedagogical approaches to cultivating one's spiritual culture.

Author 2 examined and defined the key concepts of the research, such as vocal art and spiritual culture, and presented the findings in the article.

Author 3 investigated theoretical and methodological approaches to the research, clarifying corresponding foundations for developing a spiritually enriched personality.

Author 4 significantly contributed to the article's concept and structured its content according to specific thematic blocks, particularly emphasizing the neuropedagogical aspect.

Author 5 focused on vocal art as a crucial aspect of the study.

Author 6 defined the criteria and methods of researching the factors that influence one's spiritual culture through vocal art.

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