

The Arts as a Means of Developing Emotional Intelligence in the Context of Neuropedagogy

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Abstract: *The article discusses the emotional intelligence of students and the influence of art on its development. The relevance of a developed harmonious personality has always been a priority in contemporary education, and emotional intelligence in recent years has become a revolutionary tool in the development of higher professional and pedagogical training. Studying emotional intelligence represents one of the important tasks in neuropedagogy. Therefore, the influence of art on students' emotional intelligence can turn out to be an effective solution and is the purpose of this research. The analysis of research of teaching methodology for art subjects in secondary schools allows us to conclude that art acts as a beacon in the development of emotional intelligence in school education. In this article, we consider key issues such as the genesis of emotions, the concept of feelings and emotions, mood and emotionality, the impact of positive emotions on personality and understanding the concept of emotional intelligence. Emotional capability and mood are of undisputable importance for art. The development of the emotional capability requires a specific mood, which leads us to believe that the teacher's support is crucial in the process where a student cognizes their own personality. The question arose concerning the importance of emotional literacy with regular academic subjects. This proves that a child's development should not be confined to academic subjects only, meaning, EQ and IQ are equally important in today's world. The adequate formation of a child's personality calls for the balance of both EQ and IQ where art is to be given significant attention.*

Keywords: *emotional intelligence; art; positive emotions; feelings; balance; harmonious personality.*

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Introduction

The development of a harmonious personality has always been a topical issue in modern education within the technocratic society. According to psychologists, a harmonious personality is a well-rounded person free from internal conflicts, and enjoying internal harmony. It is believed that the subjective assessment of the harmonious personality is built upon psychological well-being characterized by self-acceptance, autonomy, personal growth, purpose in life, positive relationships with others, and environmental management (Ryff & Keyes, 2000). Unfortunately, in the modern world, mental health is jeopardized by ubiquitous digitalization. Our separation from our fellow men and isolation in the cybernetics space are gradually chipping away at things that used to be normal, namely self-acceptance. This issue is encroaching upon the sphere of education as well. Perlmutter et al. (2020) argue that "technology was supposed to connect us, yet, our digital experiences are making us more and more disconnected. We walk with our heads down glued to our gadget screens, avoiding ideas other than our own, yet constantly reminded what we should do: eat more, buy more, post more messages, collect more likes. If we respond to this regularly, we soon develop emptiness or heaviness". The digital revolution has bestowed great opportunities on us, but also brought about emotional illiteracy of the individual, so the psychological and pedagogical support of specialists at the present stage is acmeological in nature. It is known from practice that art possesses brilliant, productive and effective features sufficient to be considered as an acmeological tool.

The multifunctional connection between art and society is indisputable. Art inspires and expands the cognitive and spiritual development of the individual, strengthens the moral and ethical qualities of the individual, while also stimulating and balancing emotional relationships. It participates in the formation of the holistic worldview from the lowest level, which is the feeling and response to the outer world, to the highest, where there is the understanding and acceptance of the world. These levels are extremely important in the disclosure of creative self-realization and harmonization of personality (Perepelytsia, 2015). The influence of art on the individual's inner world as well as their intellect cannot be underestimated. As opposed to the consumer-materialized attitude to life, art gives hope to achieve the ideal of a balanced personality, encouraging us to strive for optimization. "Art is an exit into spheres not controlled by time and space" (Duchamp, 1956).

The experience that a person has with works of art (paintings, music, theater performances, etc.) reflects the scope and reality of human feelings contributing to the development of emotional intelligence. This is especially crucial for students who are at the beginning of active understanding and perception of the adult world.

According to Tishman and Palmer (2006), the use of art in developing learning skills in various school subjects can be incredibly efficient because the art arsenal is capable of developing critical thinking. "Thoughtful thinking" helps teachers to create abundant options where students can be introduced to works of art and learn to relate them to different topics, and through various activities, these encounters promote critical thinking. Works of art are defined as "things to think about" (Tishman & Palmer, 2006). The appropriate task of art pieces is to evoke connections and develop the emotional intelligence of the individual (Sirotnyuk, 2006). For this reason, art education is included in the school curriculum.

Studying the works of experienced specialists in humanities and art education led us to believe that the child of preschool and primary school age already has the basic skills and abilities that contribute to the development of a harmonious personality both in the family circle and beyond. However, nowadays, the problem of emotional intelligence development in secondary schools is poorly studied and remains a pressing issue for the higher professional and pedagogical school in the context of neuropedagogy (Demchenko et al., 2021; Kosholap et al., 2021; Prots et al., 2021).

Therefore, in our opinion, the influence of art on the development of students' emotional intelligence is one of the solutions to this problem, which is the purpose of our research. To elaborate on it, we will rely on the development of philosophical, psychological, pedagogical, artistic and aesthetic principles of teaching art.

Literature review

In art and humanities and aesthetic research by L. T. Levchuk (1980) and M. S. Kagan (2019), the impact of art on personality development and the importance of artistic activity for stimulation of creative activity are studied. The art pedagogy is well elaborated on by L. M. Masol (2015) and B. P. Yusov (2000). The theory of creative development of a personality is covered by D. B. Bogoyavlenskaya (2002), B. M. Teplov (1985) and others.

The works by I. E. Novoseletskaya (2017), Perepelytsia (2012), M. I. Stas (2007) and L. V. Tikhenko (2009) offer a comprehensive analysis of the core of the problem of formation of value orientations of the person by means of art and questions of its art and creative development.

Analysis of research on the methods of teaching art in secondary schools

Rapid changes in social life in the modern world give rise to new educational conditions. The process of transition from reproductive to creative and productive forms of modern secondary education creates favorable conditions for increasing the effectiveness of teaching cultural and humanitarian subjects.

The analysis of researches on the problems of methods of teaching art in comprehensive schools reveals that over the recent decades, reputable scientists gave thorough consideration to methods of teaching culturological and humanitarian subjects. Many new programs, courses, innovative pedagogical technologies of this cycle have been developed and tested with regards to their relevance.

The new Ukrainian program of the Integrated Course called "Art" is a great example, as it was positively and harmoniously adapted to the modern dimension of education. The integrated course aims at teaching the arts in primary school, nurturing values and worldviews in the field of art while also promoting creative expression and aesthetic self-improvement (General Education, 2018).

Such products of Ukrainian art and pedagogical education expand the cognitive learning opportunities for emotional intelligence development. While it is only a minor example of a contribution to the understanding of this problem, professional training of specialists who would engage children in art and develop their emotional intelligence remains relevant. The development of emotional intelligence of schoolchildren at the present stage is one of the tasks of pedagogical theory and practice and, directly, educational institutions staff.

To better understand the aim of our research, we recommend looking closely exactly at the notions of emotion and emotional intelligence. Quite a few psychological, pedagogical, and philosophical sources report on the value of understanding and applying these terms in pedagogical practice. Relying on the achievements of scholars and practitioners, we can see that formation of the cognitive activity of schoolchildren is near to impossible

without emotions, understanding of feelings, and motivation to learning (Leontiev, 1992; Sukhomlinsky, 1977).

Understanding emotions

According to scientists, "our emotions have their own mind, which can function independently of our rational mind", Yasyukova (1999). J. Led's discovery of the role of the amygdala in emotional processes makes it clear that emotions have their own bank of memories and responses that a person displays directly, regardless of knowledge and experience. This means they are often involuntary and uncontrolled by our consciousness. It is emotions that are often opposed to thinking, just as emotional, sensory attitudes are opposed to rational attitudes toward reality. Our emotions manifest the extremes of positive or negative assessment of reality. Any ambiguous relationship, experience or emotion of one object toward another occurs when the emotional assessment is not sufficient to determine the individual's attitude to reality. Then, the process of thinking comes to the rescue. Emotions help establish the individual's attitude to the unconscious aspects of reality (Perepelytsia, 2012).

Psychological and pedagogical literature offers more than 70 definitions of "emotion". They are divided into models, groups, and types. Each of the main types of emotions is divided into subtypes, and those, can be further divided in terms of intensity, duration, depth, awareness, origin, conditions of their arising inward or outward, past, present or future), the method of their expression in the external display of feelings, and on the neurophysiological basis (Khutorskoy, 1988). It is generally accepted that emotion is the result of people's evaluation of their environment.

Such things as mood and emotion are the crux of art, as such. Many scientists share the opinion that emotions and moods are related but they are not the same (Beedie et al., 2005). Mood is essential for the development of emotional intelligence, thus, when it comes to cognition of one's own personality pedagogical support is important.

Although feelings and emotions are often referred to as synonyms (Tsios, 2008), emotions are a temporary attitude to reality, while feelings express a stable attitude. According to Leontiev, they are the highest product of the development of emotional processes, a separate subclass. W. Lowenfeld (1959) believes that the sensory sphere of the individual ensures the realization of their creative potential, and every person is a potential creator from birth, and only life circumstances, as a rule, do not contribute

to their creative self-realization. Some authors believe that emotions and feelings are to be distinguished as qualitatively different psychological phenomena of the emotional sphere based on the needs they cause, the functions they perform, and the physiological mechanisms they possess. Historically, feelings are formed in the process of human social development and change depending on specific social conditions (Perepelytsia, 2012). In life, feelings come into play later than emotions. They are formed along with the development of individual consciousness under the influence of the upbringing in the family, educational institutions, and, especially, art. In the process of personal development, feelings are organized into a unique system of priorities, in which one of them occupies a leading place, while the others remain unactualized. Feelings are conventionally classified into ethical (moral), formed in the process of education, intellectual (cognitive) considered as the engine of the human society, aesthetic, based on the ability to perceive harmony and beauty, and parental, formed directly in the family, etc. (Perepelytsia, 2012).

The formation of a child's emotions and feelings is the most important condition for their development as a personality. The main function of human emotions is the purposeful channeling of activities. Therefore, emotions can be used to influence the content and dynamics of the child's cognitive processes (perception, imagination, attention, memory, and thinking). To reveal and develop the emotional space of a child means to expand and strengthen the already existing emotions as well as the new emotions and feelings, to learn to understand them, while also promoting understanding of the surrounding reality and the ability to feel the beautiful (Perepelytsia, 2012).

"The better the feelings are developed, the deeper and fuller the individual's perception of beauty can be. At the same time, the more often a child is introduced to the beauty in any of its interpretation, the more perfect the mechanism of their feelings" (Starovoit, 2009).

According to a theory on positive emotions called Broaden and Build Theory developed by Barbara Fredrickson, positive emotions play a role in the development of long-term survival resources such as psychological resilience and prosperity. Positive emotions are not only a sign of prosperity and expansion in life, but they can contribute to prosperity both in the present and future. Since positive emotions positively expand and shape the repertoire of thoughts and actions, they lead to increased resources and happier life. (Compton, 2005; Fredrickson, 2001, 2004).

Fredrickson associates the formation of new skills primarily with the broad properties of positive emotions. The connection of positive emotions with such divergent mental processes is not denied. However, other theoretical frameworks illustrate how shrinking functions of negative emotions can also play an important role in the creative process. In other words, the creative process of skill formation is considered complex or dialectical, expanding and shrinking the information depending on the task and the specific time (Rathunde, 2000).

We all understand that the development of positive feelings and emotions builds a positive attitude towards reality. "We must use the positive states of the child to involve them in learning in areas where they can develop competencies. Mastery of any skills should ideally occur naturally, with no rigidity but spontaneously, the way the children actually love" (Goleman, 2021).

Thus, modern research in the field of emotions continues to supplement the pedagogic, humanitarian and cultural heritage of human society. Teachers must first explain the emotions and understanding of feelings, moods, motivating learning on a positive level. Positive moods, feelings, and emotions are found to facilitate the creative process, multiply themselves and encourage learning. "By teaching people to tune in to their emotions with intelligence and expand their care, we can transform organizations from within and bring a positive effect to our world" (Goleman, 2021).

Emotional intelligence for schoolchildren

What is emotional intelligence and why is it important to develop it in school students? If we look this term up in the dictionary, we will find that EQ, which stands for Emotional quotient, is a group of mental abilities that help people to understand their emotions and the emotions of others. People with a high level of emotional intelligence have a good understanding of their emotions and demonstrate the aptitude for empathy, can effectively manage their emotional sphere, and therefore, their behavior is more adaptive enabling them to easier achieve their goals in interaction with others (Emotional Intelligence, 2019).

Thus, children with developed EQ easily build social relationships and get on with the basic aspects of their lives. They tend to demonstrate better academic performance, adapt to society easier, have a balanced

lifestyle and generally report higher rates of satisfaction with life (Educational portal, 2020).

The EQ concept has been around for decades. It was popularized in the 1995 book *Emotional Intelligence: Why It Can Matter More Than IQ* by psychologist Daniel Goleman, who argued that EQ is cumulative of five abilities, which are:

1. Self-awareness: understanding what a person feels at a given moment. Understanding how the mood can affect those around.
2. Emotional control: control impulse, and to recover from life's upsets.
3. Self-motivation: skill at using your emotions in the service of a goal, staying hopeful despite setbacks.
4. Empathy: Perceiving how others feel.
5. Handling relationships: strong social skills are the key to popularity, leadership, and interpersonal effectiveness. Using emotions facilitates social communication (Goleman, 2021; Rosen, n.d.)

Exploring emotional intelligence and addressing the relevant problems expands the range of issues embracing emotional competence, emotional maturity, emotional culture, and emotional creativity.

Daniel Goleman described the importance of emotional literacy in school with regular academic subjects: "What is no less important, careful research shows that EQ not only improves children's social and emotional abilities but also reduces risks such as violence, substance abuse and teenage pregnancy while improving children's behavior and raising their positive attitude towards learning. The most impressive thing is that academic performance improves by an average of 12-15%" (Goleman, 2021).

In his book "Social Intelligence" Daniel Goleman emphasized the importance of emotions: "Viability arises from simple human contact. It makes the people we forget about the most an elixir, a constant source of energy. The neural exchange between grandparents and baby, between... good friends, has tangible benefits" (2021).

In previous years, the coefficient of logical skills, known as IQ, was regarded as the indicator of a reasonable and harmonious personality. But now the competent opinions in the fields of psychology and pedagogy agree that the development of emotions is an inherent component in the formation of the child's psyche. It is a glacier, where the IQ is the tip of it we see and understand, while emotional intelligence EQ is the underwater part.

Let us consider some examples from the teaching practice. The children who have been A-students and enjoyed a reputation of clever and disciplined students often end up working low-paid jobs, whereas those whose grades and behavior leave much to be desired turn out to be more successful in adult life. This pattern can indicate that a high IQ level not supplemented by emotional intelligence leaves an individual poorly equipped for a life in a rapidly changing environment where they cannot communicate with people effectively and cope with stress. So, no matter how smart your child is, and no matter how good their grades are, without a high EQ it will be difficult for them to interact with people, succeed in the profession and find fulfilment in their personal life.

This proves that a child's development should not be centered on academic performance only, because EQ and IQ are equally important in today's world.

Neuropedagogy, which studies the functions of the brain and the principles of its use in the learning process, argues that the mechanisms of brain development must work in a harmonious balance. Some researchers believe that keeping the balance of the brain process resembles the library, where things are stored according to the catalog and context (Blake et al., 2003).

Professor Traugott once emphasized, "We need to warn the school against left-hemisphere education. It raises people who are incapable of real action in the realities of the situation". Professor Hrizman also adds that "right hemispheres responsible for generating ideas are disappearing, which means the number of creative people is decreasing. The issue is burning, the nation must be saved". Most scientists who have studied the genesis of emotional intelligence are inclined to believe that EQ is not an innate but a mastered trait. So far, scientists have come up with two dominant opinions on the factors that stimulate the development of emotional intelligence. The proponents of the biological approach point to the importance of heredity and individual psychological personality traits. Those advocating for the social factor believe that the social environment plays a pivotal role. We are leaning toward the idea that the social factor dominates over the biological since the emotion is generated as a response to the environment (Lyashch, 2017). What is peculiar to point out is that there is also a gender difference in the understanding of emotional intelligence. Research has shown that the structure of emotional intelligence distinguishes two aspects: intrapersonal (self-affirmation, ability to defend one's rights) and interpersonal

(emotionality, interpersonal relationships, social responsibility). With men, the intrapersonal factor takes an upper hand, while women are dominated by the interpersonal factor. That is, women are more emotional, responsible between relationships, whereas men are independent of the situation or opinions, more optimistic. In adolescence, the level of empathy is most pronounced in girls.

The identification of gender features in emotional intelligence has attracted many scientists.

Art acts as a leading tool in the development of emotional intelligence in school education. Musical art is especially popular, where different types of musical activities in class, playing musical instruments, choir singing, listening to music, or going to the theater have shown a positive effect on the emotional state of students. It is an exciting process of acquiring new emotions and experiences, and it lays the foundation for further, new ways of solving problems. The starting point in the artistic development of schoolchildren is the ability to perceive, analyze, empathize, and evoke their emotions. However, the ability of children to compose, invent, perform tasks by ear requires a consistent and purposeful approach under the direct or indirect supervision of an adult competent in the art of music. Of course, the persistence of the teacher plays an important role in achieving the goal, but how to teach students to perform complex tasks while developing discipline and strong thinking? How to teach a student to be persistent and consistent? Art is all about emotion, while music is all about mood, but it is still work that requires perseverance, the ability to cope with everyday learning difficulties. American researcher, Ed. D. Donna M. Volpitta, who studies the importance of emotional intelligence for children with learning and attention challenges, offers the resilience formula. In her book "The resilience formula: a guide to proactive not reactive parenting", the researcher points to 4 vital parts of the formula of persistence: personality, situation, support and strategy (Volpitta & Habe, 2012.). When asked how children feel when they successfully complete a task, they receive messages saying, "Wow, that was good" (dopamine), "Wow, you're doing a great job" (serotonin) and "Boy, you are loved." (oxytocin). According to Dr. Volpitta, when children are not given the opportunity to experience those emotions, we force their brains to look for them elsewhere. "I like to tell parents that the sense of self-worth is not a gift you can give," says Volpitta. "It's a neurochemical reaction that you deprive your child of when you don't let them experience a challenge." When we contribute something

nice to the world and feel appreciated, our brain secretes neurochemicals that make us feel good (Rosen, n.d.; Volpitta & Hape, 2012).

COVID-19 pandemic has put the governments and enterprises across the globe to a gruesome test. The lockdowns have dealt a disastrous blow on the livelihoods of many communities and exacerbated the existing psychological disorders of many people. According to a survey conducted by consulting firm Harris Poll, 44% of people feel loneliness stronger than ever before. More than half (52%) would like advice on how to take better care of their mental health at this time. These studies once again confirm that humanity has a poor emotional intelligence mechanism and cannot effectively cope with new large-scale challenges (Perlmutter et al., 2020).

Thus, it is clear that the full formation of a child's personality requires the synergy of logical intelligence and emotional intelligence. The very formation of both EQ and IQ can be efficiently supplemented by using art in a classroom. The one-sided intellect of a child caused by rote learning proves to be inefficient in social life, resulting in a passive attitude and indifference to the environment. Brain development is stimulated in the conditions of freedom of creativity where there is no pressure, coercion or threat (the principle of freedom of creativity) (Blake et al., 2003). The power and importance of art for humanity, especially for children who are just beginning their path to independent living is undeniable, and the active use of it can expand the possibilities for children's cognitive abilities.

Conclusions

The modern-day school should recognize the necessity of the emotional intelligence development of students because emotions are the basis of creative activity. The development of artistic taste, figurative thinking, creative imagination is built upon emotions, emotional sensitivity. In our article we have emphasized the special importance of harmonization of personality, namely the development of emotions, feelings, attitude to a positive mood, since all of this encourages creativity. The human brain has to tune in to the creative vibrations and make a significant contribution to our modern technocratic world. Education should be a model and a model of the future, so we educators should be pioneers. The task of the teacher is to teach, to use the child's emotional resources competently, to give a ticket to an interesting, emotionally colored, positive future. Therefore, art should be considered one of the carriers and inspirers capable of balancing between EQ and IQ while strengthening the morality, spirituality and cognition of

the child's world. The influence of art on the development of students' emotional intelligence is undisputed.

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