

Art Technologies in Modern Kazakh Education: Tendencies and Trends

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Abstract

In modern life, in the era of informatization and digitalization, the system of pedagogical education must pay special attention to functionally competent personalities consisting in the continuity of training and development, active creative thinking, the ability to find non-standard ways to solve problems, choose a professional path and life guidelines. For successful learning activities and the development of functional literacy among schoolchildren, along with traditional didactic methods and techniques, new teaching technologies are needed. In this research, the authors offer art technologies aimed at developing the emotional and communicative spheres of children and increasing adaptive capabilities.

Keywords---*Art Technologies, Super-competencies, Arts in Education, Information and Communication Technology in Education, Functional Literacy*

1. Introduction

The development and implementation of effective learning technologies contribute to maintaining health and unleashing the intellectual potential of an educated person. Intelligence as a person's ability to think and rational knowledge is manifested in the process of intellectual labor. Fine art, as one of its products, is expressed in real material and spiritual reality. As a means of knowing the world, it is

reproduced in such a specific form as an artistic image, which is characterized by special features: associativity, individuality, emotionality, metaphor, rationality, conventionality, and style.

The goal of fine art, its types, forms, and genres is to improve the inner world of people, their moral and aesthetic tastes. At its core, visual art is experimentation with artistic images, symbols as substitutes for real objects and has an integrative character, since it combines the original forms of intellectual, spiritual and practical human activity. Fine art as a recreation of historical human life in the worlds created by artists' imagination reflects both endured and invented experiences have a wide field of activity for creativity and experiment and determine the true place of art in the formation of personality.

Any work of art reflects the contradiction between the desires of an artist and the requirements of the social environment, i.e. motives that not only give life to the work but also determine its form and content. At the same time, a work of art enables the author to give his/her fantasies a symbolic form, as a result of which one can free oneself from the requirements of the social environment to some extent. Thus, the motive of creative expression can be considered as an autonomous quality of personality.

The quality of works of art is determined by perception, thinking, memory, as well as such a specific feature of the human psyche as imagination, which occupies an intermediate position between them. The specificity of the imagination is that it is characteristic only of human and is associated with the activity of his/her body. Thanks to the imagination, a person can carry out his/her creativity via reasonable planning and management of activities. The intellectual culture of humans, in essence, is the product of such creativity. In his imagination, a person can go beyond the boundaries of his/her space and time to other worlds, to the past, present, or future.

Imagination as the basis of spatial imaginative thinking enables a person to quickly solve problems at a distance, without direct participation and activity. This is very convenient in those cases of life when practical actions are impossible, difficult, or undesirable.

Imagination differs from perception by the presence of elements of fantasy and fiction. The extreme degree of imagination, which paints a picture that is completely or little true, is called fantasy, and future-oriented one is called a dream.

Imagination manifests itself in different ways. For example, active imagination manifests itself at will, and the corresponding images are evoked by willpower. Passive imagination is characterized by the spontaneity of occurrence in addition to the will of a human. Productive imagination helps a person to create reality consciously. The reproductive imagination mechanically copies reality and resembles memory.

Teaching art helps to enhance the cultural education of an individual. This is a very important factor since the self-identification and mentality of any social group is based on the culture of its members. In multi-cultural countries, schools play an important role in helping people understand the culture of other ethnic groups, innovative curricula, and programs that use creative disciplines and creative pedagogy contribute to enhancing intercultural understanding and tolerance. Such abilities become especially important in the face of the threats facing society in the 21st century. For example, due to changes in society affecting the family structure, children are often deprived of parental attention. In addition, due to lack of communication and the ability to build relationships within the family, children often encounter a number of emotional and social problems. In addition, it is becoming increasingly difficult within the family (especially in urban settings) to transfer cultural traditions and creative skills [1].

Today, the culture of Kazakhstan continues to evolve and is based on the same principles of unity and the pursuit of peace as before. The people of Kazakhstan equally celebrate the most ancient nomad festival Nauryz and Orthodox Easter, Muslim Eid al-Adha and Catholic Christmas. For the young generation of Kazakhs, it became a natural norm to speak three languages such as Kazakh, Russian and English [1].

Art is one of the forms of social consciousness, a specific kind of almost spiritual development of the world [2]. Art models a certain type of culture and visually recreates an integral "picture of the world" of the era. Tradition is a fundamental concept of artistic culture since the existence of an artistic culture without tradition is impossible. The term "tradition" is associated with concepts such as continuity, heritage, and identity.

Despite the fact that Kazakhstan has accumulated practical material for the use of the potential of art in the process of raising children, art pedagogy, as a science-based method, is beginning to take shape only now. Until recently, this promising direction, combining the pedagogical possibilities of all forms of artistic activity of the subject, was clearly not well known, which became the reason for its scattered interpretations.

The main goal of art education is most often determined by the formation of a “person of culture”, the aesthetic development of personality, as the formation of its emotional-value attitude to works of art, artistic taste, aesthetic interests, the development of artistic qualities and abilities, etc. Art education provides an effective interaction of a person with art (artistic feelings and taste, love of art, appreciation, artistic perception, etc.) At the same time, the central place in art education is given to the development of human creativity. The main task of art education is to reveal and develop potential creative abilities [3, 4]. In addition, artistic education is considered mainly in the context of teaching art, when, with a practice-oriented creative activity of a person and the accumulation of practical skills, aesthetically oriented personality features are formed [5-7].

The modern education system of Kazakhstan is undergoing a period of updating the content of education. High-quality education depends on the success of students' learning activities based on fundamental knowledge in real-life situations. Such a successful education is called functional literacy (a term coined in 1956 by William Gray). Despite the fact that the concept of functional literacy has a long history of its development, it acquired special relevance in the 1980s due to the increasing informational complexity of the world.

According to the results of the participation of Kazakh schoolchildren in international comparative studies, for example, in PISA 2012, Kazakhstan took 49 positions in mathematics, 52 ones in natural sciences and 63 ones in reading literacy among 49 countries [8].

With the development of information technology, there is a significant enhancement of the role of digital devices and the Internet in the life of modern society. According to the Information and Analytical Center of the Ministry of Education and Science of Kazakhstan, 10% of students do not have gadgets such as tablets, e-books, etc. (please see Figure 1).

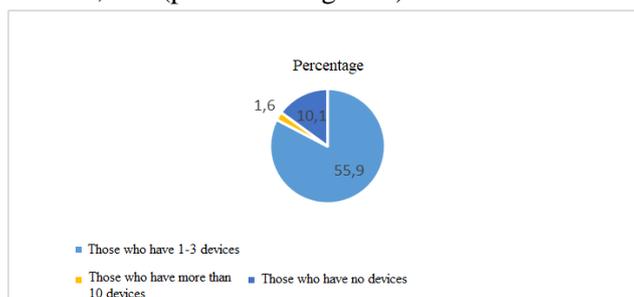


Figure 1. Presence of digital devices in respondents' families

For comparison, in the USA in 2013, 75% of children had tablets, smartphones and other mobile devices (source: Zero to Eight: Children's Media Use in America 2013 (A Common Sense Media Research Study)); in the UK, most children have tablets for playing games and watching videos, while 74% of children use the Internet for educational purposes (searching for information, training programs, etc.) and according to 2015 statistics, every 3 children had their own tablets [9, 10].

Studies showed that the use of information technology has a positive effect on the mathematical (2.4%) and reading (3.5%) literacies, while it is also proved that the presence of a computer is not an indicator of the quality of student learning. 10% of children do not use Internet resources at all to do their homework, because they do not have computers.

Researchers have noted the negative impact of the Internet on functional literacy in mathematics and reading. The results of international studies (PISA, PIRLS, etc.) demonstrate that children who like reading for their pleasure are academically more successful than those who do not like reading. The average number of books in Kazakh families is 46 books per family, and in the families of OECD countries, this number is up to 156 books. It is known that children who read more than 10 hours a

week completed 73% of the tasks [8, 11]. Figure 2 shows the amount of time Kazakh children devote to reading.

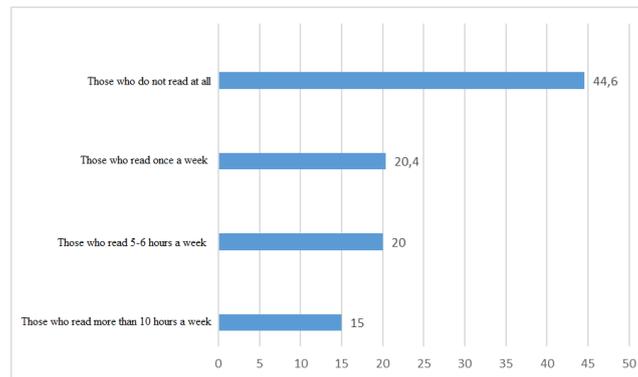


Figure 2. Amount of time devoted to reading

2. Materials and Methods

Art technologies are a combination of forms, methods, and means of various types of art aimed at developing the creative potential of a personality in the educational process. In dictionaries and encyclopedias, the concept of "art" also means skill.

The history of the development and formation of art technologies in the educational system originates from ideas about the use of methodological possibilities of fine art in the psychological and pedagogical practice of personality research. The works of C. Ricci (*The art of children*), G. Rouma (*The Child's Graphic Language*), K. Lamprecht and F. Fleider (*The Birth of the Image*), and the views of European and American scholars of the mid-twentieth century (H. Read, J. Dewey, and others) noted the importance of fine art as the main tool for creating a healthy and harmonious personality.

As research of that time testifies, firstly, the content of art technologies evolved from visual arts at the beginning of the 20th century ("artistic performance", "graphics", "classical art", "impressionism", "primitivism", "craft", "Art school", "art education") to the multiple ways of implementing art technologies based on the integration of various types of artistic and creative activities. Secondly, there is the expansion of art technologies' functions such as developing, educational, rehabilitation, compensatory ones, etc. Thirdly, there is a focus on and expanding the age and social boundaries of the application of art technologies. Art technology in the 60 and 70s of the twentieth century was considered as a combination of art and creative activity methods to achieve a pedagogical goal.

The socio-pedagogical content of art technology was based on the theory of psychoanalysis (S. Freud and C. Jung) in the form of the "art therapy" method (A. Hill). This method, with some changes and variations, is used now. At the Forum of Training Psychologists in Astana (2013), classes with children with special educational needs were held with the help of "art therapy". The essence of this method is that children with special educational needs and their parents were offered a glass canvas on which the children painted, and, on the other hand, the parents gave a meaningful picture to the children's painting. The result of this technique was the close interaction of children and parents; empathy and perception began to manifest and develop through painting.

The creative activity develops creative possibilities, releases creative forces that contribute to successful self-realization and stimulates personal growth processes (A. Maslow, C. Rogers).

The classical understanding of the use of art technology in teacher education is based on the relevant components of teachers' professional competence such as

- Cognitive one, when the following art technologies are used: "I am building a house", "My future", "Dolls", "Magic window", "Pedagogical landscape", "We draw the mood", "My dream house". These technologies are aimed at projective activity, creativity, self-analysis, and self-education;

- Communicative one, when the following art technologies are used: "Play Theater", "Collage", "Circle drawing", "Grandma's coffer", "Bouquet painted with fingers", "Color wishes", "Portrait of a friend", etc. These technologies are expressed in improving communicative culture, overcoming conflict situations, the formation of the need to harmonize relationships with people of different age groups, readiness for dialogue, and development of intercultural communication skills;

- Motivational one, when the following art technologies are used: "Create a portrait of your favorite

letter”, “Mask of your favorite hero”, “Monotype”, “Play in the sandbox”, “Draw your name”, etc. These technologies are expressed in increasing the desire for self-development, readiness for personal self-determination, and changing the rating of values;

- Empirical one, when the following art technologies are used: “Favorite tales”, “Me and my profession”, “My plans and dreams”, “Favorite image”, “I in the future”, etc. These technologies are expressed in enriching the experience of self-realization, role-based interaction, practical solutions, emotional experiences, and forecasting learning outcomes.

3. Results and Discussion

Students of pedagogical specialties were randomly interviewed. These were the students who learned subjects that have topics requiring a creative approach (“artwork”, “art 1”, “decorative and applied art”, “psychodrama”, etc.). The survey involved 132 students who noted the importance of the use of art technologies in learning and the following results were obtained:

83% - development of a creative attitude to professional activities;

79 % - development of professional skills necessary to work with groups of people of different ages;

56% - providing skills for communication and interaction with people;

43% - ability to projective activity.

Therefore, the classical approach to the implementation of art technologies in education has a basis and serves to form a successful learning activity.

In the State Program for the Development of Education of the Republic of Kazakhstan for 2011-2020, it is noted that modern society needs a person with planetary thinking, who takes an active life position, and the main factor in the education of such a person is a teacher with a high level of professional-pedagogical competence [12]. General modernization of education focuses on the reorientation of the assessment of the result of education from the concepts of “preparedness”, “scholarship”, “general culture”, “politeness” to the concepts of competence of students.

G. Selevko [13] highlights key super-competencies such as mathematical, communicative, informational, autonomic, social, productive, and moral (that means willingness, ability and need to live according to traditional moral laws) ones. Key competencies, according to A.V. Khutorsky, include value-semantic, cultural, educational, cognitive, informational, communicative, social and labor ones as well as the competencies of personal self-improvement.

Worldview-based competence is value-semantic and is associated with students' value ideas, the ability to see and understand the world around them, navigate it, be aware of their role and destiny, be able to choose goals and meanings for their actions and to make decisions. Competence provides a student's self-determination mechanism in all types of activities, determines his/her individual educational trajectory and program of his/her life [14].

The value-semantic attitudes of personality competence, clearly demonstrated in a person's professional activity as a personality-formed quality, capable of performing social and professional tasks by a number of authors, are considered as professional competence. Professional competence is defined as “the ability to the actual performance of activities”, “in-depth knowledge”, “the state of adequate performance of the task” [15-17].

In the subject-activity approach (used by K.A. Abulkhanova-Slavskaya, B.G. Ananyev, L.I. Antsyferova, A.V. Brushlinsky, Y.A. Klimov, Y.P. Povarenkov, V.A. Ponomarenko, S.L. Rubinstein, V.A. Slastenin, I.I. Chesnokova and others), the subject in psychology and pedagogy is considered as the creator of his own history, the finisher of his life's path” and is characterized by self-organization, self-regulation, goal-setting, the ability to anticipate their actions, freedom of choice, responsibility for decisions made, activity, and initiative. A person develops all his/her life as a subject, on the basis of individual and group experience, including a professional one [18, 19].

The synergetic approach enables considering the personality of a future specialist as a living, complex, open, purposeful self-organizing and self-regulating evolving system, open to external influences and possessing freedom and reason, always having a choice, and using only part of the available development opportunities.

In synergetics, the concept of “replicator” is a self-reproducing unit of information, a mirror or an object inducing certain environments to copy it [19]. In professional training, the replicator is an ideal professional model that reflects the requirements of society for representatives of a particular

profession. It encourages them to personal and professional development and activates personal meanings. It is a reference point for them; it encourages its reproduction and copying.

In the axiological approach, the idea of the need for the formation of the values and meanings of professional activity in the training of future specialists finds its expression. According to the classification of pedagogical values, personal, group and social pedagogical values are distinguished, where personal and pedagogical values act as socio-psychological formations that reflect the goals, motives, ideals, attitudes and other worldview characteristics of teacher's personality comprising the system of value orientations [20-23].

Such qualities as humanism, creativity, integrativity, and reflexivity orient the teacher to applied and practical activities. Practical work with the use of art technologies means the ability to put into practice the results of labor, the applied aspect of art technologies is the basis for the formation of a specialist's ability to design and create new technologies, and as a result, the creation of completely new results and tangible products of activity.

Humanistic education has a long tradition, the innovative nature of which contains a personalized approach to training and education. The theory of humanism authored by Abraham Maslow, who created a five-step hierarchy of personality needs successfully applied in various fields of human life, is based on the following justified principles:

- 1) People are freely acting entities capable of predetermining their personal formation and development;
- 2) People are intellectual creatures and actively plan their personal formation and development;
- 3) There is no "middle type" ("averaged model") among people, i.e. each person is unique;
- 4) The main subject of the study of human development should be positive qualities such as health, kindness, normal development, and perfection;
- 5) People have their own motives and incentives for the development of their unique inner world and for its full realization [24].

Therefore, art technologies from the point of view of the theory of humanism are considered as the use of art to transmit feelings and other content of the human psyche in order to change the structure of someone's world perception [25, 26]. Modern understanding of art technology is associated with the development of expression, communication and symbolization of personality [27-29].

Creativity in the general sense is interpreted as a complex of intellectual and personal characteristics of an individual contributing to the independent problem statement, the generation of a large number of original ideas and their unconventional solution. The concepts of "creativity" and "creative ability" seem synonymous, which could raise doubts about the advisability of introducing the former. In fact, creativity is more correctly defined not so much as a certain creative ability or a combination of abilities, but as a capacity for creativity, and these concepts, although very close, are not identical.

One of the creative methods in the field of education is the use of NIT (new information technologies) including Internet technologies, video conferences, webinars, electronic publications, and video practicums. The gained experience shows that the majority of students have sufficient abilities to use the advantages of IT for the realization of personal learning goals. It should also be noted that the teacher's high level of competence as an experienced computer user creates favorable psychological conditions for studying various fields of knowledge through the use of digital information resources. The educational interests and expectations of students determine the desire for continuing education with the use of NIT. This need for continuing education throughout life, including with the involvement of information technology, is formed for several reasons:

- 1) Career growth prospects (employment opportunities increase with the expansion of the personal knowledge potential and skills in a network environment, which, in turn, speeds up the process of mastering modern NIT software applications);
- 2) The ability to update individual knowledge resources and skills (the development of important personal qualities, enhancement of competence level and mastering additional specialties, more effective planning of free time, etc.);
- 3) Special categories of people looking for educational opportunities [30].

Reflection in pedagogy is the process and the result of pedagogical process participants' capture of the state of their development, self-development and the reasons for this. Forms of reflection such as retrospective, prospective and introspective ones are aimed at identifying and reconstructing the

schemes, means, and processes that have taken place in the past, at controlling, adjusting or complicating the thought processes during activities. Therefore, the creation of activities based on reflection (retrospection), projecting (prospaction) and regulation of the “here-and-now activities” (introspection). Reflection technology called "reflective circle" is that a teacher sets the communication algorithm, for example, he/she asks to tell about one’s emotional state, what new things are learned, to evaluate one’s own participation, what colors to choose when assessing one’s emotional state. The teacher completes the reflective circle with his/her statement.

An art technology such as a “reflective target” implies determining the success of a student’s learning activities. At the beginning of the lesson, a circle is drawn on the piece of Whatman paper according to the type of target and is divided into 4 sectors: 1) student activities; 2) content; 3) teacher activity; 4) forms and methods (please see Figure 3) [31].

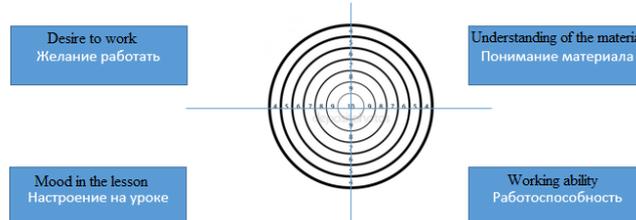


Figure 3. Reflective target

The variations of “reflective target” technology can be different, it all depends on the creativity of a teacher and the content of a subject that requires the use of such a technology.

The “Islands” technology is similar to a game of travel, where students themselves define the islands (those of pleasure, enlightenment, inspiration, anxiety, uncertainty, perplexity, sadness, etc.). During the lesson, the student draws islands on paper, which, in his opinion, arise in his emotional state. Here you can use a magnetic board with magnets on which the trainees write their condition.

Integration means the unification of disparate components, interpenetration of any elements (parts) into a whole and the process of mutual rapprochement and formation of interconnections [32, 33].

For primary schoolchildren, a new subject “Natural History” was implemented under the program of updated content of primary education. The content of this subject includes issues of chemistry, physics, mathematics, and astronomy demonstrating the integrative characteristic of the studied subject.

For example, the content of the experimental textbook "Natural Sciences" (1998, Omsk) and its structure demonstrates the theoretical material presented in a form accessible to primary schoolchildren. Children of 7-8 years of age are offered topics on human anatomy, for example, “The skeleton is a reliable human support” and “Muscles and their work.” There are topics about a healthy lifestyle, such as “Our body”, “Why should a schoolchild needs daily regime?”, “TV at home”, “The secret of longevity”, “Why do we need endurance training”, etc. Also, the textbook includes information about the development of mental processes such as memory, sensation, perception, temperament, and abilities. A survey conducted with children in a progymnasium class of the “Balausa” school (in the city of Arkalyk in 1998), had shown the following results:

73% of children are very interested in topics on the psychology of personality development;

68% liked the materials of the topic "Why do people eat";

Topics such as “Blood. Heart and its work” and “Brain and sense organs” were more difficult to understand for primary schoolchildren (87%);

The additional reading material turned out to be somewhat unexpected for children (topics such as, for example, “The Hippocratic Oath”, “Appendicitis”, “In the Laboratory”, “What X-Ray Can and Can Not”, “Where Children Come from”).

At the same time, the schoolchildren studied many topics with interest, asked a large number of additional questions that required the teacher to have comprehensive training in all areas of the Natural Sciences [34].

An integrative subject, such as Natural History, forms the students' ability to projective activities, brings them closer to new discoveries of their own. Art pedagogy and art technologies have much in common regarding the functions of correction, diagnosis, and prevention of violations of social, psychological, and professional adaptation of children by means of art. They contribute to the

formation of "self" in solving intellectual, cognitive and emotional problems of personality development.

4. Conclusion

Art technologies encourage creating a joint innovative pedagogical activity of a teacher and a student, as a result of which skills are formed for independence, self-development, awareness of one's own uniqueness and an increase in the creative potential of a person.

Such technologies form the desire for education to go into self-education, for learning to go into self-education, and for development to go directly into self-development. They also combine the artistic and intellectual perception of the world, contribute to the preservation of personality integrity, introduce students to moral values through a holistic world of art. They help the development of all sense organs, attention, memory, intuition, equip teachers with a system of innovative techniques that ensure effective entry into the knowledge system, contribute to students' adaptation to the modern sociocultural space.

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