The Social Sciences 10 (5): 633-638, 2015
ISSN: 1818-5800


# Pedagogical Potential of the Artistic-Design Activity Within the Context of Development of the Graphic Skills in Adolescents

Nadezhda Valentinovna Mishina and Ziliya Mukhtarovna Yavgildina
Institute of Philology and Intercultural Communication,
Higher School of Arts Named after Salikh Saydashev,
Kazan (Privolzhsky) Federal University, Kremlevskaya Str. 18, 420000 Kazan, Russia

**Abstract:** Today the design activity holds a high position in the educational process of the modern schools as it forms the students' need and readiness for independent acquisition of the new knowledge, develops their personal qualities, teaches how to implement the own ideas in physical or esthetical form. Along with that in the course of review of the research literature (Emelyanova, Eremeyeva and Kalashnikova), we have found out that this kind of activity in the artistic education has been under investigated. Therefore, we referred to the concept of the artistic-design activity nature and determination of its pedagogical potential influencing the simultaneous, integrated activation of such components of the graphical skills development in adolescents as cognitive, practical, motivational, perceptive, emotional-sensual one. The following methods have been used in the research: review of the pedagogical, psychological, art science literature, analysis of the educational, program and regulatory documentation; observation, surveying, testing, interviewing, method of expert assessment, pedagogical experiment, generalization and systematization of empirical material, interpretation of data obtained. The result is that this study reveals the peculiarities of the artistic-design activity, its high pedagogical potential represented by the unity of the educational, developing and motivation functions has been determined and experimentally proven which promotes to the efficient and integrated development of graphical skills in adolescents. Practical relevance of the research consists in the fact that the results obtained may be accounted for and used by development of the adapted and proprietary educational programs by the arts and design teachers at general education schools and institutions for additional education providing specialized artistic training.

**Key words:** Artistic education, graphical skills, artistic-design activity, adopted, development

## INTRODUCTION

Today providing of prevocational training and ensuring the innovative nature of the artistic-creative activity of students in the conditions of additional education, in particular, at the children arts schools (hereinafter-DSI) is one of the most important demands placed upon the educational process in terms of all the subjects in the curriculum. Prevocational training in DSI suggests formation in the pupils of not only esthetical taste, imagination and artistic perception but also the knowledge and skills allowing them to master in the future the educational programs in the arts area at the higher educational institutions.

Traditionally, graphical skills are the main skills of the DSI pupils. As of today, the researchers have to deal with the issue of reviewing the content of these skills within the aspect of those changes taking place in the society, science and industry, therefore, there is a need for design of the new method of their development. The specified issue is actively discussed by the teachers of general education schools as well as institutions for additional (Zakharov, 2011), researchers in the area of artistic education (Sadykova and Dautermann, 2009). A number of researchers suggest using the various and variative art techniques (silk painting, glass painting, ornamentation, etc.) within the context of development of graphical skills the others are sure that introduction in the process of education of the active methods and complex of the systematic, practical and culturological approaches (Emelyanova, 2011) will allow improving the level of the graphical skills development.

We referred to the issue of development of graphical skills in adolescents as this process still relies on the

**Corresponding Author:** Nadezhda Valentinovna Mishina, Institute of Philology and Intercultural Communication, Higher School of Arts Named after Salikh Saydashev, Kazan (Privolzhsky) Federal University, Kremlevskaya Str. 18, 420000 Kazan, Russia

developments that were essential 20-30 years ago; today special, scientific-methodological re-thinking of the existing approaches is required. In this regard, we have studied the peculiarities of the artistic-design activity, moreover, the experimental research performed by us showed that the artistic-design activity features a high pedagogical potential within the context of development of graphical skills in adolescents and shall be used in the education process in DSI as part of the system. The following methods have been used in the research: review of the pedagogical, psychological, art science literature, analysis of the educational, program and regulatory documentation, observation, surveying, testing, interviewing, method of expert assessment, pedagogical experiment, generalization and systematization of empirical material, interpretation of data obtained.

## MATERIALS AND METHODS

**Essential-substantial characteristics of graphical skills and peculiarities of development thereof:** Determination of pedagogical potential of the artistic-design activity within the context of development of the students' graphical skills is preceded by the study of the graphical skills content and nature of development thereof. On the basis of psychological, art studies works dedicated to the study and analysis of the terms "skill" and "graphics" we gave the definition of the term "graphical skill". A graphical skill is an intellectual-practical mental capacity of a person aimed at the conscious use of graphical knowledge and graphical skills for representation of an artistic idea on a plane is a specific ability for studying the artistic disciplines according to its content it is classified into three groups: performing, instrumental, artistic-expressive.

The performing graphical skills include the skills suggesting mastering of the drawing technique and graphical activity technologies (ability to use the laws of aerial and linear perspective in the process of drawing, ability to make outlines, sketches from nature, imagination, idea and follow the sequence of performance, ability to make the long-term and quick studies, sketches from nature, imagination or idea in the process of creative search; ability to make a diagram, etc.).

The instrumental graphical skills include using the graphical tools and materials (ability to control the drawing movements in terms of the pressing force (softness, hardness, intensity), pace, range, uniformity (evenness), smoothness according to the representation tasks; ability to independently and consciously select and use the graphic materials, techniques and combinations according to the intention, theme and graphical task; ability to represent the graphical intention on the computer, etc.).

Artistic-expressive graphical skills reflect the mastering of expressive means (ability to implement the image solution using the graphical means by demonstrating the bright characteristics of things illustrated (creation of imagery); ability to graphically express motion, transition from one form to another; ability to visualize and translate information using the graphical tools in a laconic or conditional form (creation of image-sign models and model handling, etc.).

Along with the traditional graphical skills we propose to develop in the DSI pupils such graphical skills that are aimed at realization of the new kinds of activity demanded in the modern world: design, conceptual art, media and computer art, etc. In this regard, we distinguish the following graphical skills: ability to make a sketch, brief sketch, sketch conception that may be implemented in a tangible object and more complicated material (a model, household item, etc.); ability to visualize and translate information using the graphical tools in a laconic form (for example, creation of aesthetically pleasing advertisement, logo, etc.); ability to make a diagram short-tern design or graphical task executed without teacher's advice that is usually performed after getting acquainted with the design specification, finding out the problematic situation and is performed in the conditions of shortage of information on the subject; ability to represent graphical intention on the computer which assumes mastering of various methods and functions of graphical packages as well as creative usage of the computer graphical tools by creation, editing and printing of an image.

After having revealed the essence and content of graphical skills, let's consider the peculiarities of development thereof. The researches of the Russian and foreign researchers have been dedicated to the study of the issue of the graphical skills formation and graphical training of the students (Botvinnikov and Lomov, 1979; Frostig, 1979). Most of them state that efficient development of graphical skills is promoted by activation of such mental processes as:

- Firstly, perceptual visual unity this is the direct sensual reflection of proportions, shapes of objects and phenomena, spatial relationships as the result of understanding of their distinctive features
- Secondly, spatial representation is the representation of the internal structure on the basis of the external (visually perceived) attributes of the model

- Thirdly, imaginative thinking is a mental process of the generalized and mediated representation of the established, regular properties and relationships of the reality combining the imaginative, logical-analytical and spatial kinds of thinking

Besides for development of graphical skills actualization of graphical knowledge is required this is a system of concepts of graphical images kinds, knowledge of the laws of imagery, knowledge of graphical material and tools as well as graphical skills defined as the simplest special actions formed during execution of special exercises that feature automated nature (Poluyanov and Matis, 2008). Also in opinion of a number of researchers during development of graphical skills the effect on the motivation sphere of a person is required (a motive is an internal established psychological reason of person's behavior or actions) and on the emotional-sensual sphere (sustainable maintenance of positive emotions in students during art classes).

So, graphical skills are tightly interlaced with other components of mental activity and the process of development thereof forms a continuous system represented in Fig. 1.

Thus, the graphical skills content and multi-component structure of their development require system approach providing the simultaneous integrated activation of the specified components and comprehensive development of the student's personality. Therefore, we referred to the definition of essence of the artistic-design activity featuring the integrative and stepwise nature.

**Pedagogical potential of artistic-design activity:** The analysis of works of the national and foreign researchers (Abdrafikova *et al*., 2014; Matyash, 2000) dedicated to the psychological-pedagogical issues of mastering the artistic-design activity by education parties allows defining the artistic-design activity as the person-centered activity of learners related to the practical learning and artistic transformation of reality during which a student self-develops and fulfills himself creating new cultural samples, objectively or subjectively relevant projects.

On the basis of this definition, it shall be added that the main objective of the artistic-design activity in educational process consists in creation of an artistic-aesthetical image of a tangible object featuring a subjective or objective novelty and personal or social relevance. The means of achieving the artistic-design activity objective are the compositional-plastic shaping, design-graphical modeling, graphics design, painting and

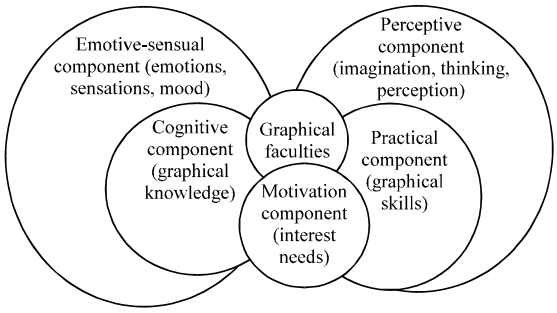


Fig. 1: Components of the graphical skills development

picture. Hence, it appears that the result of the artistic-design activity shall be a tangible project (didactic material, a piece of art, etc.). Moreover, N.V. Matyash distinguishes the unpredictable result of artistic-design activity which includes formation of the inner activity schedule, 'objectification' and 'desobjectivation' of knowledge, self-fulfillment, self-development of students.

Many researchers Eremeyeva, Pakhomova and Savitskaya add that self-development of students becomes possible in case of creating the subject-to-subject relationships (co-operation) between a teacher and pupils when learners are involved in the independent planning of their activities, goal setting, searching for solution of the educational task while teacher acts as organizer, coordinator. Along with that during the process of artistic-design activity a student may be both the object and the subject of activity which forms such qualities as independence, proactiveness, self-regulation.

The artistic-design activity is based on the principle of transformation of its stages into the structural layers of the design image:

- Pre-project (preparatory) stage
- Stage of creative stage
- Stage of creative development and project execution
- Presentation stage
- Control stage

The objective, methods, results, content of the artistic-design activity are characterized by its main prevailing characteristics:

- Firstly, the activity is constructive as it promotes to the satisfaction of the persona needs of students in self-fulfillment, self-expression, self-actualization by means of creating the new art values, objects

- Secondly, the activity is transformative as it promotes to transformation of the reality surrounding a person
- Thirdly, the activity is developing as it promotes to the intellectual, spiritual and practical development of a student's personality

By summarizing the material provided above it should be noted, firstly that the artistic-design activity features integrative character, it integrates the tools of the artistic and design kinds of activity and requires from the performer during the process of the project design mastering of a wide range of knowledge and skills. Along with that the artistic-design activity features problematic character. It is known that problem-based learning suggests creation of problematic situations and active independent activity of the learners aimed at the solution of the such situation under the teacher's guidance as the result of which the mental and practical activity of the learners, their comprehensive development are fulfilled while they experience intense positive emotions (Salakhov *et al*., 2014). It shall also be noted that the artistic-design activity ensures the practical implementation of the results obtained.

Therefore, drawing a parallel between the process of development of graphical skills and realization of the artistic-design activity in the vocational-education training of the DSI pupils one may state that the pedagogical potential of artistic-design activity within the context of development of graphical skills is high and is represented by the unity of the teaching, developing, educating and motivating functions.

The teaching function of the artistic-design activity teaches the learners the fundamentals of design and conscious use of the knowledge acquired, skills, faculties for creative solution of the relevant problem activation of the practical and cognitive components of the graphical skills development.

The developing function of artistic-design activity ensures development of the communicative, administrative, cogitative, practical faculties; formation of creative imagination, aesthetic perception, artistic thinking activation of the cognitive component of graphical skills development. Along with that the artistic-design activity helps to develop the ability to self-analyze the own activity and actions which promotes to the efficient increase in the development rate and quality.

The educating function of artistic-design activity raises in adolescents independence, responsible attitude to their work and results of their activity activation of the cognitive and emotive-sensual components of graphical skills development.

The motivating function of artistic-design activity motivates to the active research work and intellectual curiosity. Moreover, execution of a project featuring social or personal significance creates the atmosphere of healthy competition between the learners which has a positive effect on their performance, formation of vocational motivation, need and interest in the learning process activation of the emotive-sensual and motivation components of the graphical skills development.

Thus, study of the essence of artistic-design activity allowed determining its pedagogical potential in development of the learners' graphical skills which represents the unity of the teaching, developing, educative and motivating functions.

## RESULTS AND DISCUSSION

In order to estimate the efficiency of the pedagogical potential of artistic-design activity within the context of development of graphical skills in DSI pupils we have arranged the experimental-research studies. On the basis of institutions for additional education, the Children art school No. 4 and the Children art school named after Balakirev in Kazan there were formed the Control Group (CG) and the Experimental Group (EG) of adolescent learners (30 persons per each group) with about the same level of artistic training and performance. The criteria for assessment of the level of graphical skills development were: motivation-personal maturity of motives, interest in the artistic-graphical activity and need for mastering the graphical skills; cognitive knowledge of the laws of imagery, graphical terms and concepts; pragmatic-content execution by students of the graphical training and creative works. Along with that we have selected the following diagnostic methods:

- Questioning method (a questionnaire for detection of motives, interest in the artistic-graphical activity and need for mastering the graphical skills)
- Testing method (test for knowledge of the imagery laws, graphical terms and concepts)
- Method for observation over the active independent activity of adolescents
- Method of expert estimation of the graphical training and creative works of learners

We have performed diagnostics in two stages. At the first stage, we analyzed the existing level of development of graphical skills in adolescents of the CG and EG and obtained the results presented in Table 1.

According to the results presented in the Table 1 we can see that most of the CG (60%) and EG (70%)

Table 1: Levels of development of graphical skills in the CG and EG based on the results of the first stage of diagnostics (%)

| Levels | CG | EG |
|---|---|---|
| High level (optimal) | 3.3 | 3.3 |
| Intermediate level (sufficient) | 36.6 | 26.6 |
| Low level (elementary) | 60.0 | 70.0 |

adolescents have a low (elementary) level of development of graphical skills this means they have no interest in the graphical activity, poorly developed cognitive faculties, lack of the performance science; they possess superficial graphical knowledge, use graphical material that is inappropriate in respect to the task; the poor expressivity of the training and creative works is observed.

Then, during a year we had been working with adolescents from the EG, implemented the artistic-design activity into the training process. For this purpose, we have developed the educational programs on the subjects "Easel composition", "Design", "Painting", "Computer graphics". The structure of each program consists of a chain of interconnected links: activities leading to a larger link execution of an art project integrating the previously acquired knowledge and skills of learners. This ensures the comprehensive development of a personality. One of the main structure-forming elements of programs is the artistic-design activity as an innovative method of organization of the adolescent cognitive activity. The artistic-design activity is considered as a favorable environment featuring a high pedagogical potential within the context of development of graphical skills and its own specifics that consists in integrity, connection of education with real life, stepping. Adolescents from the CG were educated on the basis of the traditional educational programs without the use of the artistic-design activity.

Then, we performed the second stage of diagnostics where the pre-defined criteria and methods of assessment of the level of development of adolescent graphical were used. The results are presented in Table 2.

The results from Table 2 differ from the results presented in Table 1. The level of development of graphical skills in adolescents trained in the EG was increased as compared to the CG. Analysis of the creative works of EG students performed by us speaks of the conscious actions and increased level of development of graphical skills. Thus, most of adolescents (80%) properly arranged the preparatory work on sketching, searched for original ideas using the graphical tools, created expressive composition and original images, actively used the previously acquired knowledge and skills by execution of creative tasks in non-common artistic-graphical situations.

Table 2: Levels of development of graphical skills in the CG and EG based on the results of the second stage of diagnostics (%)

| Levels | CG | EG |
|---|---|---|
| High level (optimal) | 13.3 | 76.6 |
| Intermediate level (sufficient) | 43.3 | 20.0 |
| Low level (elementary) | 43.3 | 3.3 |

**Summary:** Thus, the study of the essence and specifics of the artistic-design activity allowed clarifying the term "artistic-design activity: and define it as the person-centered activity of learners related to the practical learning and artistic transformation of reality during which a student self-develops and fulfills himself creating new cultural samples, objectively or subjectively relevant projects.

This promoted to determination of the pedagogical potential of the artistic-design activity within the context of development of the learners' graphical skills representing the unity of the teaching, developing, educative and motivating functions ensuring activation of all components of the graphical skills development (cognitive, pragmatic-practical, emotive-sensual, motivational one):

- The teaching function of the artistic-design activity teaches the learners the fundamentals of design and conscious use of the knowledge acquired, skills, faculties for creative solution of the relevant problem activation of the practical and cognitive components of the graphical skills development
- The developing function of artistic-design activity ensures development of the communicative, administrative, cogitative, practical faculties; formation of creative imagination, aesthetic perception, artistic thinking activation of the cognitive component of graphical skills development
- The educating function of artistic-design activity raises in adolescents independence, responsible attitude to their work and results of their activity
- The motivating function of artistic-design activity motivates to the active research work and intellectual curiosity. Moreover, execution of a project featuring social or personal significance creates the atmosphere of healthy competition between the learners which has a positive effect on their performance, formation of vocational motivation, need and interest in the learning process activation of the emotive-sensual and motivation components of the graphical skills development.

This study does not provide the exhaustive review of all the items of the issue under consideration. Further research may be aimed at considering the problem of succession and continuity of artistic education at schools and higher educational institutions; the issues of development of the learners' graphical skills at the institutions for general secondary education.

## CONCLUSION

The experimental research work performed confirmed the high level of pedagogical potential of the artistic-design activity presented by the unity of the teaching, developing, educative and motivating functions, promoting to the efficient and comprehensive activation of such components of development of the adolescent graphical skills as cognitive, pragmatic-practical, emotive-sensual one.

## ACKNOWLEDGEMENTS

The study was prepared within the frameworks of implementation of the "Plan of measures on implementation of the Program of improving the competitiveness of the FSAEI HVE "K(P)FU" among the leading international research-educational centers for the years 2013-2020.

## REFERENCES

Abdrafikova, A.R., R.M. Akhmadullina and A.A. Singatullova, 2014. The implementation of project and research activities in working with gifted children in terms of school-university network cooperation (Regional aspect). English Language Teaching, 7: 54-59.

Botvinnikov, A.D. and B.F. Lomov, 1979. Scientific Foundation of Formation of Graphical Knowledge and Skills in Pupils: Research Institute of the Education Content and Methods. USSR Academy of Pedagogical Sciences, Moscow, Pages: 256.

Emelyanova, N.V., 2011. Design activity of students in the training process. Higher Education Today, No. 3, pp: 82-85.

Frostig, M., 1979. Program for the Development of Perception. Macmillan, New York.

Matyash, N.V., 2000. Project method in the system of engineering education. Pedagogics, 4: 38-43.

Poluyanov, Y.Y. and T.T. Matis, 2008. Structure-proportion-expression. Arts in the V Grade, No. 1, pp: 10-13.

Sadykova, G. and J. Dautermann, 2009. Crossing cultures and borders in international online distance higher education. J. Asynchronous Learn. Networks, 13: 89-114.

Salakhov, R.F., Z.M. Javgildina, R.I. Salakhova and I.F. Kamalova, 2014. Sociocultural adaptation of disabled children by means of computer art graphics. Life Sci. J., 11: 189-195.

Zakharov, S.S., 2011. Reflections on approval of the new law on education. School of Art, No. 2, pp: 4-5.