UDC: 159.92 ID ORCID 0000-0002-5888-1651 DOI: https://doi.org/10.24195/2414-4665-2017-12-21

> Lesia Starovoit, PhD (Candidate of Pedagogical Sciences), Head of the Department of Art Disciplines of Preschool and Primary Education, Vinnytsia State Pedagogical University, 32, Ostrozkoho Str., Vinnytsia, Ukraine

# PSYCHOLOGICAL ASPECTS OF PRIMARY SCHOOL STUDENTS' CREATIVE DEVELOPMENT IN THE PROCESS OF PRACTICAL ART ACTIVITIES

The urgency of the study is explained by the need to implement a student-centered approach into the educational process to ensure junior school students' creative development based on their individual characteristics, the formation of cognitive and communicative competencies. The paper aims to consider the dynamics of creative development of primary school students in the process of practical art activities, to distinguish psychological and pedagogical conditions of creative development of children in the process of practical art activities, to present a model of creative development and check its efficiency. In the experimental study students were tested using Torrance Tests of Creative Thinking. The positive effect of bioenergetic, art and aesthetic, cognitive-informative, emotional-axiological components on the children's creative development has been proved. It has been found that without special psychological and pedagogical conditions and purposeful mental influence, the creative development of students will be ineffective, because the changes that take place during the study according to the traditional methods, are mostly random and cannot guarantee effective creative development of junior pupils.

Keywords: creativity, creative development, practical art activities, psychological features, primary school students.

#### Introduction

Socio-economic transformations taking place in the society have become the driving force of reforming the education system, its conceptual and structural institutions. The main priorities are the focus on the intellectual, spiritual, physical and cultural development of the individual. The Law of Ukraine "On Education" states that the main goal is comprehensive development of the individual, who is the highest value of the society. Education should be aimed at the development of talents, intellectual, creative and physical abilities, the formation of values and competences necessary for successful self-realization, the education of responsible citizens who are capable of conscious social choice and the direction of their activities in favor of other people and the society, the enrichment on this basis of intellectual, economic, creative, cultural potential of Ukrainians, improving the educational level of citizens in order to ensure the sustainable development of Ukraine. This provides such a system of educational process that would harmoniously combine activities of a teacher and schoolchildren, and thus become a common forming basis for the creative development of the individual [1].

The issue of creative personality development is not new, there were periods when it was under active discussion and there were also times when it was 'forgotten'. Analyzing scientific works, we can see different trends and approaches in the interpretation and understanding of the creativity concept. In scientific research, the correlation between intellectual development and the creative potential of a person can be observed. Alfred Binet was sure there was a close relationship between the mental processes that underlie individual development, and creative activity. He considered the creative process as an effective combination of imagination, thinking and common sense [2]. His opinion was similar to Robert Stenberg's beliefs that creativity is a form of leadership, and intellectual behavior in relation to the outside world can be manifested in adapting to external conditions, in the perception of the environment or in its active transformation [3]. According to J. Renzulli's theory, giftedness includes three main components: intellectual ability (above the average level), creativity and persistence (a result-focused and knowledge-based motivation (erudition) and a supportive environment). His model goes beyond the unitary vision of a high potential and emphasizes the importance of creativity in this phenomenon. [4] In his research studies Howard Gruber questioned the interdependence between intellectual potential and creativity, emphasizing that the high level of intellectual development does not guarantee creativity [5].

The three-dimensional theory of human intelligence is aimed at explaining the integrative processes between the intellect and the inner world of the individual (mental mechanisms which are a basis for intellectual activity); between intelligence and experience (the predominance of the mediating role of life experience between the inner and outer worlds of the individual); between intelligence and the outer world of the individual, focusing on using these psychic mechanisms in everyday life to adapt to the environment. Thus, according to Stenberg, there are three main components of intelligence: a cognitive factor that measures the level of intelligence; an experimental factor, that is, adaptation to novelty and ability for creativity, and a contextual factor that corresponds to contextual adaptation and person's culture (practical intelligence). These

three components complement each other and cannot be expressed equally. A child can have a strong creative potential in mathematics and difficulties in literature. Another one will perform verbal tasks well, but it will be difficult for him or her to express images in the picture [3]. Individual differences in creative abilities and productivity can be explained in the context of a multivariate approach. According to Stenberg and Lubart, the differences in the indicators observed between individuals are the result of a combination of cognitive, conative and environmental factors.

Cognitive factors involve knowledge and intellectual abilities that contribute to creative thinking. They explain that creativity depends on awareness, since there is not the same amount of knowledge in different spheres of life. In terms of intellectual abilities, they are components of the creative process, including speed of thinking, convergent thinking and flexibility. The speed of thinking is realized in situations where the maximum number of different solutions for the same challenge should be found. In turn, convergent thinking is usually realized in a search of a unique solution. Flexibility is the ability to find a variety of ways to solve a problem, change a way to solve it and understand the problem from different perspectives.

Conative factors are, on the one hand, personality traits and, on the other hand, motivation. Some personality traits, such as risk, openness for new experiences, tolerance to ambiguity, are important for uncovering original thoughts that lead to innovative ideas. Motivation is a force that pushes a person to perform a task. Two types of motivation are distinguished: internal motivation that generates the needs of the individual, for example, curiosity, the desire to express oneself through activity, and external motivation that generates external stimuli, such as social recognition among peers. Internal motivation is more important than the external one in the creative process. Finally, the environment in which we work will have an impact on creative development. It is necessary to take into account a family, school, and environment. The combination of these multiple factors influences creative potential, its development, as well as its manifestation in various spheres [6].

When it comes to measuring a child's creative potential, as a rule, various tests are used to determine the availability of certain indicators. Todd Lubart opposes the "creative" solution to the problem to "closed" problems, which can be considered as opposite poles of the continuum [7]. Well-structured, 'closed' problems are characterized by the presence of a clearly defined path in the structure of the problem itself. The strategy to be implemented can be precisely defined, even if it is neither easy nor unique. On the contrary, poorly structured or open issues are determined by the fact that the strategies leading to their solution are difficult to identify and formalize. There is no privileged path that will lead to a solution. 'Closed' problems typically include convergent considerations, while 'open' ones require a combination of different types of thinking with a convergent one.

J. Guilford introduced the concept of divergent thinking and creativity, which were then equaled in psychology. The author pointed out that creative potential includes a set of abilities and other features that contribute to successful creative thinking. The scientist argued that there is a fundamental difference between convergence and divergence. The process of divergence is the basis of creativity, a type of thinking that focuses on different directions: the ability to see the problem; the sensitivity to disharmony, the flexibility of thinking, the speed of the emergence of ideas, the wealth of fantasy, developed creative imagination. J. Guilford's concept was then developed by E. Torrance, who understood creativity as the ability for sensitive perception of shortcomings, gaps in knowledge. He developed a system of tests making it possible to determine the "subjective creativity" of the individual's activities, which does not depend on the novelty and significance of the results [8; 9].

It is obvious that none of the tests can be a hundred percent indicator in the process of recognizing creative children. Probability and objectivity can be discussed only when the full information about the child is gathered. Therefore, any developed program of diagnostic examination of children should be aimed at collecting as much information as possible, including conversations with parents, teachers; questioning, testing, observance, etc. We consider it rational to rely on the criteria for creative development presented in the studies of J. Guilford and E. Torrance, since most modern tests are their modifications.

### Aim and Tasks

The paper aims to consider the influence of psychological and pedagogical conditions on the dynamics of junior school students' creative development in the process of practical art activities.

The following tasks are set: to identify psychological and pedagogical conditions for the creative development of children in the process of practical art activities; to present a model of creative development in the process of practical art activities; to check the dynamics of creative development of the respondents through testing and performing creative tasks; to compare the degree of maturity of the qualities under study in the children of control and experimental groups; to compare the results of the experiment.

### **Research Methods**

Based on these theoretical positions and in order to assess the degree of creative development of children, we conducted an experiment in which 629 elementary school students participated, who were randomly divided into control and experimental groups (315 - control group, 314 - experimental). We applied Torrance Test of Creative Thinking, which enabled us to identify the ability for divergent thinking (transformation and association, ability to generate and develop new ideas) [9]. The respondents were proposed tasks which were focused on creative thinking and predicted the level of individual indicators of creative development. To obtain objective data, we used a method of analyzing the products of creative activity of students and the method of generalization of independent

# Science and Education, 2017, Issue 12 \_\_\_\_\_\_147

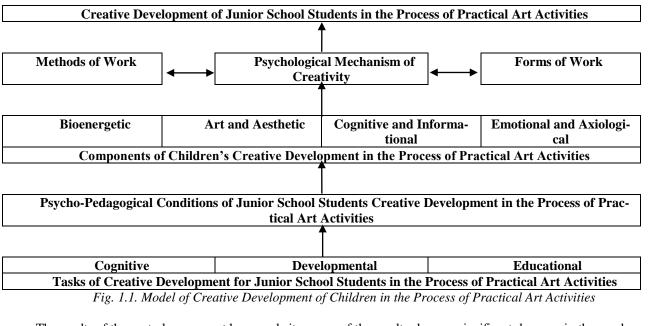
characteristics. The evaluation of the results was carried out according to the criteria of the speed of the generation of ideas, flexibility, originality of thinking, and diligence. In order to process the results of the experiment for quantitative and qualitative analysis of the developed model, methods of mathematical statistics were used: the nonparametric T-criterion and the criterion for agreement x2.

## **Research Results and Discussion**

The traditional organization of the educational process at secondary education institutions does not ensure proper creative development of elementary school students. This is due to the lack of a holistic understanding of the development strategy of a creative person, who needs self-expression and self-improvement. In the course of an experimental study, two approaches to the creative activity of children were identified. One group of teachers prefer stereotypical variants of solving creative tasks by children, and the other one gave an opportunity for independent decisions. The approach of the teachers of the first group negatively influenced the creative activity of children, because teachers did not allow them to think about their own variants of scenario, offering their own ones. When the students suggested their opinions, the teachers told them that those variants were inappropriate and insisted on their creative opinions which were "correct" from their points of view. As a result, these children did not try to think independently, waiting for a ready answer from the teacher. During the conversations with the teachers of the first group, it became clear that they criticized the children 'with the best of intentions' - since they sincerely believe that by suggesting children 'the best solution', they teach them to think creatively and also they did not accept the fact that there cannot be the only "correct" answer in creative work. The second group of teachers who supported the creative activity of children gave them the opportunity to express their thoughts, find creative solutions, and support the children in their beliefs. This approach caused children's emotional recovery and creative selfesteem. It was also noted that children were not only happy to invent their own stories, but also began demonstrating their creative abilities in other areas of life. The teachers also noted that the children became more friendly, independent, demonstrated cognitive activity in the classroom. Thus, for the creative development of the child it is necessary to direct the activities of the teacher to equal cooperation with the students in the process of creative activity. The best pedagogical communication with children should be aimed at forming a child's creativity.

Therefore, based on theoretical analysis and experimental data, we assume that in the process of artistic and practical activity, the creative development of children will be productive if the following psychological and pedagogical conditions are taken into account: studentcentered interaction of the teacher and children in the process of creative activity, enhancement of motivation for creative activity of children by transforming the cognitive component into artistic-figurative, creating emotional and creative comfort of students in the process of practical art activities, providing the integral approach to the creative activity of the students [10].

Relying on psychological and pedagogical conditions, a model of creative development of children in the process of practical art activities was designed (Fig. 1.1). Its main objectives are to take into account bioenergetic, artistic and aesthetic, cognitive-informational, emotional-axiological components of creative personality development.



The results of the control assessment have made it possible to assess the dynamics of the creative development of children in the process of practical art activities. The analysis

of the results shows a significant decrease in the number of students who had low results of performing the tasks, and simultaneous increase in the number of the students with

Science and Education, 2017, Issue 12 \_\_\_\_\_ 148

good achievements. The results indicate that 6.6% of the students in the control group and 24.1% of the experimental group have a high level of creative development; the average one was found in 43.2% and 58.6%, and the low one -50.2% and 17.3% % respectively.

The carried out analysis of the results of the creative work of primary school students indicates a decrease in the number of the respondents with a low level and, conversely, an increase in the number of children in the experimental group who have shown a high level of creative development. The high level of creative work was found in 27.2% of the respondents of the experimental group and 9.7% of the control group, the average one -in 61.7%and 59.4% respectively, and the low level was found in 11.1% of the students in the experimental group and 30.9% of the control one.

High-level works are characterized by compositional completeness, expressiveness, integrity, rhythm, successful combination of colors, the selection of the original names. The control group students' works are characterized by the lack of integrity, some incompleteness and the selection of uninteresting, template names. In experimental groups, the number of pupils with the low level of creative development has decreased significantly, and in control groups this indicator has changed insignificantly.

Thus, as a result of the experiment, quantitative and qualitative indicators of creative development grew in both groups. In order to compare the data before and after the experiment, an x2 criterion for agreement was used. After performing the calculations, we determined that for experimental groups, the value  $x^2 = 27.00$  for the test results was greater than the corresponding boundary value of the x2 criterion. For control groups, the value  $x^2 = 0.26$  was less than the corresponding table value. Thus, for the students of the control group the changes that occurred during the experimental study are not statistically significant, whereas in the experimental group there were statistically significant changes as a result of the implementation of the experimental model of the creative development. In order to prove the

## REFERENCES

1. Zakon Ukraivy "Pro osvitu" [Law of Ukraine «On Education»]. Retrieved from: http://osvita.ua/legislation/law/2231/ [in Ukrainian].

2. Binet, A. et Henri, V. (1895). La psychologie individuelle. L'Année Psychologique, 2, 415-465 [in French].

3. Sternberg, R.J. (1985). Beyond IQ: a triarchic theory of human intelligence. New York: Cambridge University Press [in English].

4. Renzulli, J. (1986). The three ring conception of giftedness : a developmental model for creative productivity. In : R.J. Sternberg et J.E. Davidson, Conception of giftedness (pp : 53-92). New-York: Cambridge University Press [in English].

5. Gruber, H.E. (1982). On the hypothesized relation between giftedness and creativity. New Direction for Child Development, 17, 7-29 [in English].

effectiveness of the distinguished psychological and pedagogical conditions and the model of creative development, we used the non-parametric T-criterion, which indicates significant differences between the results of the experimental and control groups of the students. The research outcomes confirm the effectiveness of our experimental research, the results of which show that in order to obtain significant results of creative development of junior schoolchildren in the process of practical art activities, it is necessary to provide special psychological and pedagogical conditions and to carry out a purposeful mental impact on the creative development of students.

#### Conclusions

Based on the principles of the acmeological approach, the analysis of the creative development of junior schoolchildren suggests that the consideration of bioenergetic, artistic and aesthetic, cognitive-informative, emotional and axiological components will contribute to the implementation of the educational tasks of elementary school. The reorientation of the educational process of secondary school to the formation of a creative person is realized under the conditions of observance of the student-centered interaction of the teacher and children in the process of creative activity, strengthening the motivation for the creative activity of children by transforming the cognitive component into artistic-figurative, providing emotional and creative comfort of students in the process, artistic and practical activities, as well as an integrated approach to the creative activity of junior pupils. The results of the experiment have shown that appropriate conditions and the introduction of an effective model of creative development of junior school students contributes to their creative development by means of the intensification of practical art activities. The study does not cover all aspects of the issue. Psychological principles of vocational training of highly skilled creative elementary school teachers require scientific and theoretical reflection and experimental study, which us supposed to be the issue of our further scientific search.

6. Amabile, T.M. (1982). Social Psychology of creativity: A consensual assessment technique. Journal of Personality and Social Psychology, 43 (5), 997-1013 [in English].

7. Georgsdottir, A. et Lubart, T.I. (2003). La flexibilité cognitive et la créativité. Psychologie française, 48 (3), 29-40 [in French].

8. Guilford, J. P. (1986). A psychometric approach to creativity. University of Southern California [in English].

9. Torrance, E.P. (1976). Tests de Pensée Créative. Paris : Éditions du Centre de Psychologie Appliquée [in French].

10. Starovoit, L.V. (2010). Pedahohichni umovy tvorchoho rozvytku molodshykh shkolyariv u protsesi trudovoho navchannya [Pedagogical conditions of creative development of younger students in the course of labor training]. Naukovi zapysky – Scientific notes, 261-266 [in Ukrainian].

11. Bobyk, O. I. (2007). Teoriya ymovirnostey i ma*tematychna statystyka : pidruchnyk [Theory of probability* 

## ЛІТЕРАТУРА

1. Закон України «Про освіту» [Електронний ресурс] Режим доступу:

http://osvita.ua/legislation/law/2231/

2. Binet A. La psychologie individuelle / A.Binet, V.Henri // L'Année Psychologique. - 1895. - №2. - P. 415-465.

3. Sternberg R.J. Beyond IQ: a triarchic theory of human intelligence / R.J. Sternberg. - New York : Cambridge University Press, 1985. - 231p.

4. Renzulli J. The three ring conception of giftedness : a developmental model for creative productivity / J. Renzulli // In : R.J. Sternberg et J.E. Davidson, Conception of giftedness. - New-York : Cambridge University Press, 1986. - P.53-92

5. Gruber H.E. On the hypothesized relation between giftedness and creativity / H.E Gruber // New Direction for Child Development. - 1982. - №17. - P. 7-29.

6. Amabile T.M. Social Psychology of creativity : A consensual assessment technique / T.M. Amabile // Jourand mathematical statistics: textbook]. Kyiv: VD «Profesional» [in Ukrainian].

nal of Personality and Social Psychology. - 1982. - №43 (5). – P. 997-1013.

7. Georgsdottir A. La flexibilité cognitive et la créativité / A.Georgsdottir, T.Lubart // Psychologie française. - 2003. - 48 (3). - P. 29-40.

8. Guilford J. P. A psychometric approach to creativity / J. P. Guilford. - California : University of Southern California, 1986. – 264 p.

9. Torrance, E.P. Tests de Pensée Créative. / E.P. Torrance. – Paris : Éditions du Centre de Psychologie Appliquée, 1976. – 126p.

10. Старовойт Л.В. Педагогічні умови творчого розвитку молодших школярів у процесі трудового навчання / Л.В.Старовойт // Наукові записки. - Тернопіль: ТНПУ, 2010. - С. 261-266.

11. Бобик О. І. Теорія ймовірностей і математична статистика : підручник [для студ. вищ. навч. закл.] / О. І. Бобик, Г. І. Берегова, Б. І. Копитко. – К. : ВД "Професіонал", 2007. – 560 с.

#### Леся Василівна Старовойт,

кандидат педагогічних наук, завідувач кафедри мистецьких дисциплін дошкільної та початкової освіти, Вінницький державний педагогічний університет, вул. Острозького 32, м. Вінниця, Україна

# ПСИХОЛОГІЧНІ АСПЕКТИ ТВОРЧОГО РОЗВИТКУ МОЛОДШИХ школярів у процесі художньо-практичної діяльності

Актуальність дослідження зумовлена необхідністю впровадження особистісно-орієнтованого підходу в освітній процес для забезпечення творчого розвитку учнів на основі виявлення їх індивідуальних особливостей, формування пізнавальної і комунікативної компетентностей. У зв'язку з цим проаналізовано основні підходи до розуміння та трактування поняття «творчість» та визначено психологічні аспекти творчого процесу, розглянуто наукові дослідження з проблеми діагностики творчого розвитку дитини. Мета статті – послідкувати динаміку творчого розвитку дитини у процесі художньо-практичної діяльності. Виокремлено психолого-педагогічні умови творчого розвитку дітей у процесі художньо-практичної діяльності, представлено модель творчого розвитку, виявлено у молодших школярів динаміки творчого розвитку за допомогою тестування та виконання творчої роботи, порівняно ступені розвиненості досліджуваних якостей у дітей контрольних та експериментальних груп, порівняно результати констатувального та кінцевого зрізів. В експериментальному дослідженні було проведено тестування учнів на основі тесту креативності П. Торранса, використано метод аналізу продуктів творчої діяльності учнів та метод узагальнення незалежних характеристик. З метою обробки результатів дослідно-експериментальної роботи для кількісного і якісного аналізу розробленої моделі було використано методи математичної статистики: непараметричний критерій Т<sub>спост</sub> та критерій згоди х<sub>2</sub>. Проаналізовано результати емпіричного дослідження взаємозв'язку творчого розвитку дитини із вдало організованою художньо-практичною діяльністю. Визначено вплив біоенергетичного, художньоестетичного, когнітивно-інформативного, емоційно-аксіологічного компонентів на творчий розвиток дитини у процесі художньо-практичної діяльності. Встановлено, що без дотримання спеціальних психолого-педагогічних умов та цілеспрямованого ментального впливу творчий розвиток учнів буде малоефективним, адже зміни, які відбуваються упродовж навчання за традиційною методикою, носять переважно випадковий характер і не можуть гарантувати ефективного творчого розвитку молодших школярів.

Ключові слова: творчість, творчий розвиток, художньо-практична діяльність, психологічні особливості, молодший школяр.

Submitted on November, 24, 2017

Reviewed by Doctor of Pedagogy, prof. N. Mozhaliova

Science and Education, 2017, Issue 12 \_\_\_\_\_ 150 -