

RESEARCH OF DIFFERENTIATED APPROACHES TO DEVELOPMENT OF CREATIVE POTENTIAL OF ARCHITECTURE AND ART STUDENTS

ДОСЛІДЖЕННЯ ДИФЕРЕНЦІЙОВАНИХ ПІДХОДІВ ДО РОЗВИТКУ ТВОРЧОГО ПОТЕНЦІАЛУ СТУДЕНТІВ АРХІТЕКТУРНО-ХУДОЖНЬОГО НАПРЯМУ

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At the present stage of reforming the system of higher architectural and artistic education, the development of the creative potential of future specialists is of considerable interest. The consequence of this, respectively, is the problem of how to develop and improve each applicant's personal qualities necessary for creative professional activity, which is the relevance of the study. The article is devoted to the multifaceted problem in the educational process – the search for different approaches to the development and improvement of creative potential of future specialists in the field of architecture and art.

The results of experimental research are based on the material collected during the last three years from the graphic disciplines "Descriptive Geometry", "Painting", "Drawing" and "Sculpture". The research is founded on our study consisted generalized results observations current and final assessments in classroom graphics tasks the first and second year students Institute Architecture and Art in Odessa State Academy Civil Engineering and Architecture. The sample consisted the 129 first-year students and 120 second-year students.

To achieve this goal, the following research methods were used: theoretical generalizations and comparisons the data, practical methods the educational observations, multidimensional method in statistical data processing, expert evaluations and comparative method and content analysis.

The formation graphic training future architects and artists begins in the first year study, is included through the study artistic and design features masterpieces in world architecture. Note that the new architecture is an unusual form in a very unusual combination and connection, so the creation of such compositions requires from teacher new innovative approaches to the development of appropriate graphic student's competencies.

Key words: *graphic disciplines, students of the architectural and artistic direction, graphic competencies, creative potential.*

На сучасному етапі реформування системи вищої архітектурно-художньої освіти значну

зацікавленість викликає розвиток творчого потенціалу майбутніх фахівців. Наслідком цього, відповідно, є проблема, яким чином можна розвивати й удосконалювати кожному здобувачу особистісні якості, що необхідні для креативної професійної діяльності, в чому й полягає актуальність дослідження. Стаття присвячена багатогранному питанню в освітньому процесі – пошуку різних підходів до розвитку й удосконалення творчого потенціалу майбутніх фахівців архітектурно-художнього напрямку.

Наведені в роботі результати експериментальних досліджень базуються на матеріалі, зібраному за останні три роки з графічних дисциплін «Нарисна геометрія», «Живопис», «Малюнок» і «Скульптура». Дослідницькою базою нашої праці стали узагальнені результати спостережень за поточними й підсумковими оцінками виконання аудиторних графічних завдань у студентів першого й другого курсів Архітектурно-художнього Інституту Одеської державної академії будівництва й архітектури. Вибірку склали 129 студентів першого курсу й 120 студентів другого курсу.

Методами проведення експериментальних досліджень були навчальні спостереження, багатовимірний метод обробки статистичних даних, експертні оцінки й порівняльний метод контент-аналізу. Результати досліджень узагальнюються в представленій роботі.

Формування графічної підготовки майбутніх архітекторів і художників починається з першого року навчання, в тому числі через вивчення художньо-конструкторських особливостей шедеврів світової архітектури. Зауважимо, що нова архітектура є неабиякою формою в дуже незвичайному поєднанні, тому створення таких композицій вимагає від викладачів нових інноваційних підходів до розвитку відповідних графічних компетенцій у студентів.

Ключові слова: *графічні дисципліни, студенти архітектурного й художнього напрямку, графічні компетентності, творчий потенціал.*

Problem statement. The modern reform of the higher education system in Ukraine puts forward new requirements for the teaching of graphic disciplines in higher education institutions. In connection with which there is has a need for constant discussion and monitoring the quality education and control the student progress. The profession of an architect or artist, like no other, has a unique creative potential for cognition and transformation of reality. The specificity of the formation of artistic and graphic competence of students is closely related to professional creativity. It is included an analysis the results research work on the study creative heritage prominent architects

and artists in different eras. The relevance of the study lies in the need to use an in-depth scientific and methodological approach in the theory and practice professional graphic education in the creative specialties in the architecture and artistic.

Analysis of resent research and publications. In the scientific literature, we are found a number studies on the problem improving the methods teaching graphic disciplines for students creative specialties in higher education institutions [1, p. 642; 2; 3; 7; 13, etc.].

The previously unresolved parts of the overall problem are as follows. According to the analysis of recent research, in our opinion, different teachers

formulate different approaches to this problem, so the methodological tools are quite diverse [4; 5, p. 17–21; 8; 9; 10; 11, etc.].

We emphasize that each of them has its own point of view on the methodology of teaching, but, of course, to increase the effectiveness of the educational process requires the joint work of teacher and student.

Also, original conceptual approaches to the methodology were considered in the following works [6; 12, etc.].

The purpose of the article. The main purpose the study is to search for various methodological approaches to the development and improvement creative potential students in architecture and art.

We will understand creative potential as a complex of personal qualities that allows us to realize the creative, aesthetic and psychological aspects in the future professions.

Our research is based on the development of differentiated options and experimental verification of the feasibility of introducing educational creative tasks, allowing, on the basis of an individual approach, to develop the compositional thinking of students, and, accordingly, their creative potential.

Presentation of the main materials. The formation of professional graphic training for future architects and artists is began from the first year of study, are included through the study the artistic and constructive features the masterpieces of the world architecture. It is noted that modern architecture exists in a highly competitive environment. Based on this, the creation of interesting, significant objects requires new non-standard approaches to the graphic training of future specialists.

As you know, the concept of secondary education has now been changed. It is currently focusing on test submission of information. The exclusion of a number of disciplines and sections of disciplines from the compulsory training program for schoolchildren

(painting, drawing, stereometry, etc.) resulted in a general decrease in the inclination of schoolchildren to design activity, which requires not only knowledge, but also the presence of appropriate abilities and skills.

The practice of recent years has shown a decrease in the organization and discipline of students, the cause of which can be considered problems, including the social nature (demographic situation, weakening of the competitive situation when enrolling applicants, etc.). High requirements for the quality of graphic skills level of students in the context of a decrease in the classroom activity and a reduction in the volume of disciplines among teachers have a raise many questions.

The main options in the study of methods of forming and improving the creative potential of students are considered by the authors on the example of many years of experience in teaching graphic disciplines in the first and second years of the Institute of Architecture and Art of Odessa State Academy of Civil Engineering and Architecture (OSASEA).

Table 1 shows the results of experimental studies of the quality of current and final control of knowledge of the basic graphic discipline “*Descriptive Geometry*” for students of the architectural and artistic school of first-year students of two semesters. 90 students took part in the experimental sample.

Attention should be paid to the deep meaning of descriptive geometry. Even Plato said that the gods love geometry. Descriptive geometry is the leading discipline for transforming flat thinking into spatial thinking. This is a unique tool for “traveling through spaces”.

The results of tests, control tests, final control show that about 85% of students after studying the discipline “*Descriptive Geometry*” have good spatial thinking.

It should be emphasized that in the second semester the success was higher, because, in our opinion, students have already adapted and shown their propensity for creativity.

Descriptive geometry is a developing science. There is no valid reason for the removal of descriptive

Table 1

Comparative Table of Achievement Quality in the discipline “Descriptive Geometry” among first-year students of architectural and artistic direction

| №№ | Volume of graphic tasks | Amount of students | | Ongoing control (quality of success) | | Final control (quality of success) | |
|-----------|----------------------------|--------------------|-------------|--|---|--|---|
| | | 1 | 2 | 1 | 2 | 1 | 2 |
| 1111 1 | Term I: ALBUM OF DRAWINGS | 90 (100%) | 25 (28%) | Good, well done, A, B (62 stud. – 68,9%) Medium, D (28 stud. – 31,1%) | Good, well done, A, B (19 stud. – 76%) Medium, D (6 stud. – 24%) | Good, well done, A, B (72 stud. – 80%) Medium, D (18 stud. – 20%) | Good, well done, A, B (22 stud. – 88%) Medium, D (3 stud. – 12%) |
| 22 22 | Term II: ALBUM OF DRAWINGS | 90 (100%) | 28 (31%) | Good, well done, A, B (66 stud. – 73,3%) Medium, D (24 stud. – 26,7%) | Good, well done, A, B (22 stud. – 78,6%) Medium, D (6 stud. – 21,4%) | Good, well done, A, B (78 stud. – 86,7%) Medium, D (12 stud. – 13,3%) | Good, well done, A, B (25 stud. – 89,2%) Medium, D (3 stud. – 10,8%) |

Note: in the first semester, students took the test, and in the second semester, students took the exam

Analysis of the final results of the control of students' knowledge

| Final assessment | I group | II group | III group | IV group | V group | Distribution of academic performance absolute / relative |
|--|----------|----------|-----------|----------|---------|--|
| Number of students N | 25 10 | 24 10 | 23 10 | 23 7 | 24 7 | 119 44 100% |
| marks "excellent", A, (90 points and above): – architecture students; – art students | 12 9 | 12 9 | 10 8 | 6 5 | 8 6 | 48 40 37 84 |
| marks B, C "good" (75–89): – architecture students; – art students | 7 1 | 5 1 | 6 2 | 7 2 | 7 1 | 32 27 7 16 |
| mark "satisfactory" (61–74): -architecture students -art students | 6 0 | 7 0 | 7 0 | 10 0 | 9 0 | 39 33 0 0 |

Note: the total number of students in second-year groups also includes foreign students.

geometry from the curriculum of architecture, design and arts. We are convinced that this discipline will help students become competent specialists who are able to formulate and solve scientific and applied problems.

Table 2 shows the results of a study that took place in the process of teaching graphic disciplines "Painting", "Drawing" and "Sculpture" to first and second year students of architecture and art direction.

The total number of students who participated in the study is 119 and 44 people, respectively. The experimental sample for the comparative analysis of the results of the control of students' knowledge was carried out in five groups according to the final assessment of academic performance for two semesters.

Thus, the study of graphic disciplines is important the study of graphic disciplines is important. It is contributing to the development of volumetric-spatial and logical thinking of students, the mastery of artistic techniques real display of environmental objects and definition of the structure and geometry of objects in general.

Conclusions. When using different teaching methods, the student's motivation for mastering theoretical and practical skills increases, and cognitive competence is formed. He learns to analyze, structure the knowledge gained, and look for new opportunities to realize his creative potential.

In the future, the authors plan to continue research in this direction. We intend to improve the methodology for determining and ranking the creative potential of students, to expand the criteria for its assessment and development prospects for students of the architectural and artistic direction.

REFERENCES:

1. Бредньова В.П. Про необхідність якісної професійної художньо-графічної підготовки

майбутніх архітекторів. *Региональные проблемы архитектуры и градостроительства* : Сборник научных трудов. 2007. № 9–10. С. 642–644.

2. Bredniova V. On the improvement of the methodology of engineer staff's graphic training on the basis of optimization of psychological and pedagogical approaches. *Modern Tendencies in Pedagogical Education and Science of Ukraine and Israel: The Way to Integration*. Ariel University, 2016. Issue 7. P. 38–42.

3. Бредньова В.П., Смичковська О.М. Моніторинг якості професійного навчання студентів архітектурно-художнього профілю. *Zbiór artykułów naukowych*. Warszawa, 2017. S. 49–50.

4. Бредньова В.П., Смичковська О.М., Прохорец І.М. Про підвищення ефективності професійної графічної підготовки студентів архітектурних і художніх спеціальностей. *Педагогічні науки*. 2018. Вип. LXXXI. Т. 1. С. 131–134.

5. Бредньова В.П., Смичковська О.М., Прохорец І.М. До проблеми формування графічних компетенцій студентів архітектурних і художніх спеціальностей. *Науковий вісник Південноукраїнського національного педагогічного університету імені К.Д. Ушинського. Серія «Педагогічні науки»*. 2018. № 1 (120). С. 17–21.

6. Бредньова В.П., Прохорец І.М., Михайленко Е.В. Дослідження соціально-психологічної та графічної підготовки абітурієнтів до навчання в закладах вищої освіти. *Інноваційна педагогіка* : Журнал наукових праць Причорноморського науководослідного інституту економіки та інновацій. 2020. № 20. С. 128–131.

7. Драч І.І. Компетентнісний підхід як засіб модернізації змісту вищої освіти. Київ : Інститут інноваційних технологій і змісту освіти Міністерства освіти і науки України, 2008. Вип. 57. С. 44–48.

8. Компетентнісний підхід у сучасній освіті: світовий досвід та українські перспективи. Бібліотека з освітньої політики /Під заг. ред. О.В. Овчарук. Київ, 2004.112 с.

9. Nahrybelna I.A., Nahrybelnyi Ya.A. Educational potential of digital tools in the individual work of future navigators in the conditions of blended learning. *Інноваційна педагогіка* : Журнал наукових праць Причорноморського науково-дослідного інституту економіки та інновацій. 2021. № 40. Р. 172–176.

10. Смит С. Рисунок : полный курс. Москва : Астрель: АСТ, 2005. 159 с.

11. Чернилевский Д.В. Дидактические технологии в высшей школе. Москва, 2002. 437 с.

12. Stones E. Psychopedagogy. Psychological Theory and the Practice of Teaching. Methuen, 2000. P. 400.

13. Организационные формы обучения. 4 октября 2010 г. *Дидактика средней школы* : веб-сайт. URL: <https://didaktica.ru/osnovy-obshhej-didaktiki/172-organizacionnye-formy-obucheniya-2.html>.