

Color Scheme In The Formation Of The Artistic Environment Of The Interior Of Modern Educational Centers

SIDDIQOVA MADINABONU

Intern Lecturer, Department of Hydraulics and Construction of Engineering Structures, Qarshi State Technical University

E-mail: siddiqovamadinabonu@gmail.com ; ORCID ID: 0009-0006-9873-6754

ABSTRACT. *In this article, the role and importance of colors in the artistic design of educational institutions and educational centers is studied. Scientific solutions for the design of color types, taking into account the type of educational institution and the psychophysiological abilities of students, are presented by the authors. studied.*

KEYWORDS: *“Color, cold color, warm color, educational system, educational centers, color construction”*

INTRODUCTION

In the era of globalization and rapid innovation, the education system, like all other spheres, has entered a new stage of development and acquired advanced forms and content. On September 23, 2020, the President of the Republic of Uzbekistan, Shavkat Mirziyoyev, signed the new edition of the Law “On Education.” This law defines the following types of education: preschool education and upbringing; general secondary and secondary specialized education; vocational education; higher education; postgraduate education; retraining of personnel and professional development; and extracurricular education.

It has been scientifically proven that the proper architectural and interior design of educational institutions in accordance with modern requirements significantly affects the quality and effectiveness of education. According to the established Construction Norms and Rules (CNR) and Urban Planning Standards, the design of educational institutions must take into account the physiological and psychological characteristics of pupils and students, as well as the specific educational orientation of the institution. In this process, the state acts as both a regulator and a client, ensuring strict compliance with established norms and standards.

At the same time, preparatory and specialized training courses have already become an integral part of the education system and are regarded as a promising form of independent learning. For example, private educational centers such as “Najot Ta’lim” and “Meta Ta’lim” have quickly gained wide popularity among learners. However, while public educational institutions are designed in strict compliance with state architectural and interior regulations, the architectural solutions and interior design of many private learning centers remain at the discretion of their founders.

In this regard, the authors’ research focuses on the scientific and technical aspects of shaping the artistic environment of learning centers, particularly the role of color solutions in interior design. The study identifies existing challenges and explores modern approaches to their resolution through innovative methods.

Research Methods

In the course of the research, several methodological approaches were applied, including the analysis of scientific and educational-methodical literature, pedagogical-historical observation, and generalization techniques. These methods allowed for a comprehensive understanding of the role of colors in interior design of educational institutions and their psychological and pedagogical effects on learners.

Research Findings and Discussions

Color plays a crucial role in the interior environment of buildings. With the proper use of a color scheme, it is possible to influence human mood and psychological state, adjust emotional tone, reduce excessive physical sensitivity, and create an atmosphere of joy, optimism, festivity, concentration, calmness, alertness, and increased productivity. Moreover, color effects can partially neutralize the negative impact of microclimatic factors, improve spatial orientation, and enhance the sanitary-hygienic condition of rooms. Through color solutions, it is possible to regulate the temperature–humidity regime of a room, reduce noise, and even balance the perception of heat or cold depending on the dominant tones. For instance, cold shades in south-facing rooms absorb heat rays effectively, reducing brightness and alleviating the psychological effect of excessive sunlight.

Aesthetic orientation also plays a significant role: human sensitivity to beauty often drives conscious choices in interior color palettes. The emotional perception of color manifests through associative links. Colors are not perceived in isolation; rather, they are transformed through associations with natural phenomena and objects. For example, sunlight and fire are associated with yellow and red, which evoke warmth, leading them to be perceived as “warm colors.” Such associations also form dichotomies like joyful–sad, light–heavy, resonant–quiet, dynamic–static, etc. Among the properties of colors, the conditional classifications of “warmth” and “coolness” are considered the most dominant.

A key question arises: to what extent are these characteristics of color taken into account in the interior design of modern learning centers? Are the chosen color palettes aligned with state standards and the creation of an artistic environment conducive to education? Observations reveal that in many private learning centers, interior solutions are shaped primarily by the personal preferences of founders rather than scientific or regulatory guidelines.

In order to compare practices, well-established and globally recognized educational centers were studied. One of the most significant findings is the necessity of considering the age group of learners when choosing color palettes for educational environments. According to Frank H. Mahnke, author of *Color, Environment, and Human Response*, different age groups exhibit distinct preferences and reactions to color. For example:

- Preschool children (2–4 years) and primary school children (5–10 years) prefer warm and bright colors. The warm part of the spectrum—red, orange, and yellow—complements their naturally extroverted nature.
- Middle school students (11–13 years) and high school students (14–18 years), by contrast, gravitate toward cooler and calmer tones. Blue, green, and violet promote concentration and relaxation, making them suitable for adolescents transitioning into adulthood.

Color influences emotions, attention, behavior, and ultimately academic performance. However, both overstimulation and understimulation through color should be avoided. Achieving balance in color design creates an optimal environment for learning and development. Importantly, designing an environment that is simply “colorful” is not a constructive solution, as the long-term influence of school colors affects thousands of learners over many years.

Unfortunately, the importance of color in shaping children’s future is often underestimated. In many cases, neutral tones dominate, with minimal use of accent colors, while furniture tends to feature darker shades to minimize cleaning and maintenance requirements. This functionality-oriented approach overlooks the role of color psychology in educational settings. Some colors can facilitate information absorption, while others enhance cognitive processing.

By keeping in mind the intended purpose of the learning environment, it is possible to develop effective color schemes that facilitate learning. Moreover, colors should not be limited to wall decoration; depending on the desired effect, they can be applied strategically to furniture, ceilings, and even flooring to achieve maximum impact.

Glenbard West High School



Figure 1. Hamilton Primary School supplementary classroom

Samarqand IT Private School



Figure 2. Color scheme of a classroom

Interior of the “Registon” Private Educational Center in Samarkand



Figure 3. Architectural façade of the building



Figure 4. Warm color scheme of the classroom

Selecting a color palette for the learning environment requires careful consideration of the specific age group of students. Preschool children aged 2 to 4 and primary school children aged 5 to 10 generally prefer warm and bright colors. The warmer part of the spectrum—red, orange, and yellow—complements their naturally extroverted temperament. On the other hand, middle school students aged 11 to 13 and high school students aged 14 to 18 are more inclined toward light and calm tones. Blue, green, and violet—colors from the cooler part of the spectrum—are associated with relaxation and concentration, supporting students as they transition from childhood to adolescence.

The characteristics of colors in the educational process can be expressed as follows:

- Warm yellow is lively and energetic, evoking positive emotions associated with the sun and summer.
- Green, a cool color, is linked with rest and calmness; it further conveys comfort, peace, hope, happiness, and excitement.
- Neutral gray is often associated with negative emotions such as sadness, loneliness, depression, confusion, boredom, fatigue, anger, and fear.

Conclusion

Research shows that colors may have therapeutic effects, especially for individuals with physical or cognitive challenges. For example, placing a colored transparent sheet over a black-and-white page has been found to help children with dyslexia read more effectively.

In the decoration of learning centers, colors play a vital role in fostering independent learning and shaping the atmosphere of classrooms. Typically, there are many approaches to decorating classrooms, and the choice of colors should correspond to the specific characteristics and goals of each room. At the same time, every color has its own meaning and influence on learners. The following colors are particularly important for attention, comprehension, motivation, and learning outcomes:

1. Green: Enhances a sense of calmness and supports better comprehension of lessons.
2. Blue: Provides a strong calming effect and improves concentration.
3. Yellow and orange: Stimulate focus and support ambitious learning goals.
4. White: Associated with clarity, simplicity, and ease of understanding.
5. Bright colors (red, yellow): Stimulate energy and engagement, but excessive use may cause anxiety or restlessness.
6. Gray: Can have a soothing and stabilizing effect when applied appropriately.

In designing the interiors of educational centers in Samarkand, it is also important to determine effective combinations of colors. Such combinations not only create visual harmony but also enhance students' motivation and interest in learning. For instance, a mixture of green and blue tones can foster a positive classroom atmosphere. Understanding the psychological effects of each color and applying them purposefully is essential for creating an educational environment that supports learning and personal development.

References

1. O'zbekiston Respublikasi "Ta'lim to'g'risida"gi Qonuni. 2020-yil, 23- sentabr.
2. Алвар. А Архитектура и гуманизм.—М.: Прогресс, 1978.
3. Алексеев В.И., Вержбицкий В. Интерьеры обеденного зала в предприятиях общественного питания. В кн.: «Интерьеры общественных зданий». Госстройиздат. 1963.
4. Ананьев Б.Г., Рыбалко Е.Ф. Особенности восприятия пространства у детей.
5. Анохин П.К. Новое о работе мозга. «Наука и человечество». «Знание», 1965.
6. Аронин Дж.Э. Климат и архитектура. М., 1959.
7. Сирожиддин Мурадов. [ПРОБЛЕМЫ ТУШЕНИЯ ПОЖАРОВ КЛАССА Е ЛИЧНЫМ СОСТАВОМ ПОЖАРНОЙ ОХРАНЫ В МИРЕ](#). International journal of advanced research in education, technology and management. 2023/5/25.

-
8. Muradov S. [ANALYSIS OF “MEASURES TO ENSURE OCCUPATIONAL SAFETY IN THE FIELD OF CARGO TRANSPORTATION AND LOADING.”](#) International journal of advanced research in education, technology and management. 2023/9/29. [bet 127-132]
 9. Мурадов С., Ражабов Х. Ф. [ИЗУЧЕНИЯ УСЛОВИЯ ТРУДА В КОМПАНИИ ЕВРОПЫ.](#) International journal of advanced research in education, technology and management. Vol. 2 No. 10 (2023) 2023-10-06.
 10. Султанова Д.Н. Сиддиқова М.А. Xususiy o‘quv markazlarining tashkil topishi va yangi ilmiy va amaliy metodlarni qollash// Меъморчилик ва қурилиш муаммолари. СамДАҚУ. – Самарқанд, 2023. 3-сон. -Б. 211-213. (18.00.00, Миллий нашрлар, № 2).
 11. Султанова Д.Н. Harmony Of Art In Architecture Of Uzbekistan / Гармония искусства в архитектуре Узбекистана// The American Journal of Social Science and Education Innovations (ISSN – 2689-100x) Published: May 17, 2021 | Pages: 87-94 Doi: <https://doi.org/10.37547/tajssei/Volume03Issue 05-16> IMPACT FACTOR 2021: 5. 857 OC LC - 1121105668 –Б. 87-94.
 12. Султанова Д.Н. Samarqand shahridagi “Almaz” restorani Interyerining badiiy bezaklari//«Образование и наука в XXI веке» Rossiya xalqaro ilmiy jurnali. Кемерово-2022. 24 сон. -Б. 420-425. file:///C:/Users/Dilshoda/Downloads/.
 13. Султанова Д.Н. Искусство как психологическое воспитание ребёнка/ Материалы международной научно-практической конференции: «Архитектура и архитектурная среда: вопросы исторического и современного развития». (ТИУ) сборник статей. (23-24 апреля) / ТомII. – Тюмень: ТИУ, 2021. – 462 с. – С. 473.
 14. Султанова Д.Н. Формирование профессиональных компетенций у будущего учителя изобразительного искусства/ Инновационные технологии в дизайн-образовании и изобразительном искусстве: теория и практика // материалы VII Всероссийской научно-практ. Конф. – Ялта: ГПА КФУ им.В.И. Вернадского, 2021. – 60 с.-Б. 21-15.
 15. Султанова Д.Н. Домостроительные комбинаты в архитектуре Узбекистана/VI Международной научно-практической конференции «Дизайн и архитектура: синтез теории и практики». ФГБОУ ВО «КубГУ» 18-23 апреля 2022.–С. 317-321.<https://kubsu.ru/sites/default/files/faculty/dizayn>.