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## CLASSROOM DESIGN: A FOUNDATION FOR GROWTH

Анотація. Дизайн навчального середовища значно впливає на розвиток молодших школярів. Ця робота досліджує, як природне світло, колір, зонування, ергономіка та природні матеріали впливають на академічні, соціальні, емоційні та фізичні навички студентів. Дослідження показують, що добре спроектований простір може позитивно вплинути на успішність, самопочуття та поведінку студентів. Педагоги можуть підтримувати цілісний розвиток дітей, створюючи простори, сприятливі для навчання, благополуччя та соціальної взаємодії.

**Ключові слова:** проектування навчального середовища; колористика; ергономічність; зонування; розвиток дитини; психоемоційний стан.

Abstract. The design of learning environments significantly impacts the development of primary school children. This work explores how natural light, colour, zoning, ergonomics, and natural materials influence students' academic, social, emotional, and physical skills. Research suggests that well-designed spaces can positively affect students' performance, well-being, and behaviour. Educators can support children's holistic development by creating spaces conducive to learning, well-being, and social interaction.

**Keywords**: design of learning environments; colouristics; ergonomics; zoning; child development; psycho-emotional state.

The socio-cultural impact of learning environment design on the development of primary school children is an essential factor in shaping not only the academic but also the social, emotional, and physical skills of children. How spaces in educational institutions are organised affects students' performance, well-being, creativity, and behaviour. Well-designed learning environments help to create optimal conditions for children's learning, development, and socialisation, which is especially important in the early school years.

According to modern research, the design of classrooms directly affects the psycho-emotional state of students. Spaces with plenty of natural light and bright but calm colours help improve mood and motivation to learn and reduce stress levels in children [1]. In particular, the psychological impact of colour on children has been proven in numerous studies: warm and bright colours, such as yellow and green,

have a positive effect on learning activities, increasing concentration and interest. At the same time, dark colours can cause fatigue and even apathy [1]. In addition to colour, zoning plays an important role. Schools should have separate spaces for individual and group work and places for privacy and relaxation. It allows children to work comfortably in the appropriate environment, depending on their needs.

Ergonomic solutions are an integral part of effective learning space design. It is noted that properly selected furniture is critical to ensuring the comfort of students. In particular, adjustable desks and chairs allow students to adjust the furniture to the anthropometric parameters of children of different ages, which helps avoid musculoskeletal problems and promotes correct posture [2]. One example of effective furniture solutions is modular systems that allow classrooms to be configured according to group or individual work needs. This approach not only increases the flexibility of the learning process but also promotes the development of communication skills and cooperation between students [2].

The use of natural materials and landscaping has a positive impact on children's psycho-emotional well-being, reducing stress and improving air quality. In schools where plants and natural materials are actively used, students are more interested in learning and can better adapt to the school environment. In addition, children's participation in caring for the plants fosters responsibility and environmental awareness [3]. Plants such as aloe not only purify the air but also create a cosy atmosphere in classrooms, making the learning environment more attractive and contributing to the harmonious development of children. These design elements also stimulate positive socialisation, creating an atmosphere of cooperation and mutual support among students [3].

The design of the learning environment significantly impacts the development of primary school children, shaping their academic, social, emotional, and physical skills. Proper space organisation improves the psycho-emotional state of students, increases their motivation and reduces stress. Ergonomic furniture helps avoid musculoskeletal problems, and classroom landscaping contributes to a healthy and comfortable environment. The practical design supports the learning process and promotes socialisation and harmonious development of students.

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