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Interactive interior design with artistic elements—to enhance teaching effectiveness and functionality in schools implementing an innovative curriculum.

Doctoral thesis in the field of arts in the discipline of fine arts and art conservation.

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Abstract

In this paper, I focus on key factors influencing the functioning and learning of today's youth in secondary school settings. In the first two chapters, I outline the general characteristics of teenagers as the primary target audience of the project, pertaining to the scientific literature in the fields of neurology, cognitive psychology, education, philosophy, and discussions on modern education. I briefly describe the biological and psychophysical mechanisms, as well as the neural changes characteristic for adolescence. I present scientific findings that highlight factors which either hinder or support teaching and learning processes. I analyse these findings on an ongoing basis and use the conclusions drawn from them to inform some of my project decisions. I have also outlined the generational identity of children who are now entering secondary school – Generation Alpha – as well as the environmental, social and technological factors associated with this generation. I describe the factors influencing the cognitive and mental well-being of this age group. I seek to justify the need to consider the specific needs of teenagers in the process of designing the educational environments in which they learn. I pay particular attention to the factors that influence the mental well-being, learning effectiveness and social functioning of adolescent pupils. Chapter three is devoted entirely to spaces. It provides a detailed description of architectural and functional solutions, including the potential for integrating architectural spaces with the digital environment and artificial intelligence as an interactive tool to support the work of teachers and pupils, as well as the organisation and collaboration required for the flexible adaptation of educational spaces. I draw on the conclusions from the first two chapters and highlight the validity of the concept of these specific spaces. I introduce technological solutions in the design of interior architecture as a space that facilitates multi-modal engagement among young people during learning, which can enable pupils to open their mind to educational content and also provide support for teachers. Most of the proposed solutions are designed to enhance the effectiveness of teaching and improve the efficiency of the educational process. I am also seeking solutions that can help reduce school-related stress, as this represents a significant barrier to learning. I present proposals for ways to integrate various adaptive, technological and organisational solutions into the school's architectural environment. I aim to combine the knowledge derived from the latest scientific and technological advances with the adaptation of a school building of the socialist era, transforming it into a modern, youth-friendly educational centre. In the overall design, I employ a range of mobile and modular solutions to make the architectural space more commodious and flexible in its use. I am reorganising the traditional functional layout of the classroom and introducing interactive digital environments to enhance educational outcomes, creating spaces that can be adapted to specific tasks, and enabling the transformation of both digital and physical learning and relaxation zones. I also present concepts for spaces that foster culture, promote integration, encourage creativity and offer active leisure activities to support pupils' cognitive development and enhance the psychological and physical well-being of all users of the comprehensive secondary school.