

## Principles of Building of Objective-Spatial Environment in an Educational Organization

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### ABSTRACT

The article is devoted to the subject of human-spatial environment and its effects on personality development. The author gives a deep analysis of the research methodology of this issue, that leads to an understanding of the necessity to the concept developing the experts cooperation - teachers, psychologists and designers. Thus, in the processes of interaction with the object-spatial environment there is a medium whose order is determined by the overlap of a number of structures: architectural and spatial, communication, engineering and communication, social and functional. Therefore, knowledge of the laws of change and an organization's environment, studied the ecology, ethology, sociology, psychology, bionics and other disciplines, supports its practical transformation.

### KEYWORDS

Environment; objective-spatial environment; psychology of environment; methodology of environment; principles of objective-spatial environment building

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## INTRODUCTION

The problems of building of objective-spatial environment where children live and grow up, is permanently in the focus of our researchers working in the field of psychology, pedagogy, architecture, design (Volkov, 1989; Genisaretsky, 1966; Rozin, 1991; Kantor, 1980; Shherbakova, 2006). In social and philosophic aspect the environment was researched by V.G. Afanasyev (1977), V.G. Vinogradsky & D.S. Svirkin (2008), L.A. Zelenov, A.A. Vladimirov & L.A. Schurov (1989).

Typological and design-planning aspect of building design of educational institutions was considered in the researches by N.B. Blokhina, L.T. Vihrova & G.M. Davydov (1974), E.M. Makotinskaya (1991), etc.; the issues of methodology of educational institutions design were studied by A.L. Gelfond (2006), etc.; psychological researches connected with the investigation of peculiarities of children's perception in the age aspect to various environments were conducted

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by B.G. Anan'ev (2008), A.V. Zaporozhets & G.D. Lukov (1941); the methods of implementation of prioritized directions of educational activities in the educational institutions were studied by L.P. Bannikova (2007), T.A. Danilina, V.J. Zedgenidze & N.M. Stepin (2004).

### Materials and Methods

In the 21st century the Russian science studying this problematics accumulated a great deal of scientific papers relating to the residential object environment from such perspectives as: aesthetic values of the environment; social and cultural problems of consumption in the object environment; influence of objective-spatial environment on formation of needs and abilities of a person (Bezmozdin, 1990; Kraeva, 1999; Kagan, 1991)

At the governmental level in the RF and the Russian regions the variants of solution of the problem of deficiency in the educational institutions are reflected in the following documents: Federal Law “On Education in the Russian Federation”; the Yedinaya Rossiya party program “Children Need Day-Care Facilities”; in social projects of Autonomous Noncommercial Organization “Agency of Strategic Initiatives”; in the 'road maps' of each subject of the Russian Federation; in the Federal target program of educational development.

### Results

The main kinds of children's activity (intellectual and physical development) form the basis of room content definition for educational institutions of general type. Behavior and activities of children depend on their spatial environment: they develop emotionally colored attitude towards it, evaluate it. As known, child develops in activities. In the processes of interaction of a child with objective-spatial surrounding an environment emerges, regularity of which is defined with mutual imposition of a series of structures: architectural-spatial, communicative, engineering-communication, and social-functioning.

Some researches formed the concept of structure of educational environment: V.Y. Nechayev (1992) notes that the environment should be joyful, substantive, interesting, happy and the corresponding conditions are created in the educational institutions. V.S. Polikarpov & Yu.G. Volkov (1991), point to the fact that developing environment forms creating potential opportunities for positive influence of various factors in their interaction on formation of an integral personality. O.V. Suvorova, S.N. Sorokoumova & L.A. Spotkaj (2015) considers the representativity of personal development in objective-spatial environment as a result of self-development.

O.V. Suvorova, S.N. Sorokoumova & L.A. Spotkaj (2015) formalize the following peculiarities of environment and the factors of its successful development for child:

- creation in a group of the atmosphere of calmness, joy, high spirits, respect and confidence in the child;
- filling children's lives with interesting and pleasing impressions and substantive activities;
- ability of adults to control themselves, regulate their own mood and emotional states;



- prevention of emotional discomfort and emergence of enmity between children;
- refusal of authoritative way of control over children with application of orders, prohibitions and threats;
- use of play and art activities for support of stable emotional state and correction of negative emotional manifestations;
- organization of reasonable schedule for prevention of exhaustion;
- attempts to prevent the influence on children of the negative factors of social environment: rigid regulation of living, excessive internationalization and emotional impressions, indignity, inappropriate actions and emotional instability of the adults and peers.

The interconnection between the environment education and development of every child was discussed in the foreign pedagogy. However due to the influence of active human work the environment changes, transforms and in this process the way of personal interaction with it also changes.

T.G. Muhina & E.E. Shherbakova (2006) use the scientific category of 'environment' in correlation with the idea of 'person' in many branches of scientific knowledge. That's why it is necessary to apply to the dual of 'person and environment', which becomes principal in the context of research of the problem of educational environment organization as factor of personal development.

T.V. Kerova (2013), etc. consider that children naturally strive to the activities with various materials – sand, clay, wood, and thus their own knowledge transforms into the skills in the process of creative work. Taking this striving as a basis the researches guess that it is reasonable to choose the materials for children's activities purposefully and thus prepare them through play and work to some kind of craft or artistic work.

## Discussion

I.S. Aboimova & V.S. Trofimov (2014) consider the educational environment includes the following components:

1. Organizational and methodical (concepts of education, upbringing, education plans, programs, guides, best practices etc.)
2. Person-centered (presence of the conditions and opportunities for satisfaction of personal needs in accordance with the individual educational trajectories; adjustment of environment for realization by the person of his or her own activities in various kinds of work: cognitive, informational, scientific etc.)
3. Substantive and technological (aims, tasks, forms, methods of initial pedagogical process, use of effective technologies of education).

According to M.S. Kagan (1991) educational environment includes:

1. Students group components of the pedagogical system covering micro-community of the educational group.
2. Teachers components of the pedagogical system by means of which over the targets of the education the direct control of education/bringing-up process is implemented based on the pedagogy of tolerance, person-centered methods of education and upbringing and ensuring formation of knowledge, skills and ways

of productive thinking and cognition among the students as well as socially significant values and relations of personal development.

Analysis of works by T.N. Doronova (2004) and others allows stating that many researchers distinguish different aspects of educational environment, its composition and therewith often underevaluate the issues of substantiation of the structure of educational environment, considering first of all its didactic, developing capacities, the best conditions for formation of educational and cognitive activities of a student in an education and upbringing process. Educational environment, to our mind, is the system, the complex of certain conditions, elements and means and thus has a certain structure. The structure of educational environment is composed by a certain complex of components which define what aspects of environment are the subject of research.

The requirements specified by a person to objective-spatial environment, are structured by L.A. Zelenov, A.A. Vladimirov & V.A. Shurov (2005) as complex qualities including: usefulness i.e. satisfaction of utilitarian needs of a person. It is the base for formulation of sociological principle of design concluded in the consideration of the social needs' dynamical structure. Consideration of technological and production as well as technical and operational factors vitalizes the engineering principle of environment design which is concluded in the functional perfection (reliability, simplicity, durability etc.)

## Conclusions

The aesthetical principle of design corresponds to the concept of beauty, which means the manifestation of aesthetical regularities in objective-spatial environment. This principle requires consideration of compositional and aesthetical factors of environment, economic viability i.e. the content of animate and materialized labor of society. Based on this the economic principle of design is formed requiring consideration of the expenses of animate and materialized labor at all the stages of the subject existence. It is the convenience which means the correspondence of an object to the anatomic, physiologic and psychological characteristics of a person. Based on this the ergonomic principle of design is formed requiring study and consideration of anatomic and psychophysiological factors.

Organization of environmental space of various levels – from the global ecological ecosystem to the 'personal space' of an individual is based on the knowledge of regularities of its building which are also investigated by sociology, bionics, hexicology and a series of the other disciplines (Aleksandrova & Markova, 2015). An important role in formation of objective-spatial environment of various functional purposes currently belongs to psychology, pedagogy and design.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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