

THE IMPACT OF PEDAGOGICAL CONCEPTS OF SOCIAL ENVIRONMENT ON THE ORGANIZATION OF THE PHYSICAL ENVIRONMENT

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Abstract. *The paper discusses the implications of the social environment on the modern pedagogical process and their interdependence with the physical environment. The initial assumption is that pedagogical processes form certain types of social activities which encourage the development of the appropriate physical environment.*

Different patterns of social environment are defined by the typological analysis of social activities in the pedagogical process. In addition, the basic research framework implies the cooperation of various forms of social environment and the influencing factors on the organization of the physical environment in terms of contextual changes in the pedagogical process.

Defined qualitative properties suggest the creation of a polyvalent physical environment that offers a whole range of intermediate forms for the implementation of various forms of social activities in the pedagogical process.

Key words: *school children, social environment, physical environment, pedagogical process*

1. INTRODUCTION

In order to understand the complexity of the pedagogical process it is necessary to study all those important contextual elements that influence the formation of certain conditions which govern the educational work with school children, and to study all the qualitative components which are the essence of the pedagogical process (Tanić et al., 2016). The environmental conditions in which the pedagogical process takes place, in which teacher and school children through certain patterns of activities form different relationships with the social environment create the basic framework for the further consideration of the qualitative characteristics of the physical environment in schools.

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Some studies have considered the impact of the physical environment on cognitive development and social behavior of school children. Some of the conclusions are that school physical environments can support positive development. Or, on the opposite side of the spectrum, they can contribute to increased disruptive behaviour, less positive social interaction, and increased stress levels among preschool and elementary school children (Ahrentzen et al., 1982; Moore, 1985 Wohlwill and Heft, 1987; Evans, 2006; Evans et al., 2007; Maxwell, 2007; Maxwell and Chmielewski, 2008).

When it comes to consider the interdependence of social and physical environment, the scope of the pedagogical implications in the function of the concept of modern school environment is based on the essentially active position of school children, implementation of various pedagogical methods, means of work and sources of knowledge, through various forms of social work and as well as the group size of school children. As it has been pointed out by pedagogue Vlahović (2001): "... some of the boldest predictions show that our society is developing toward a society without formal schools, or at least without the traditional type of school, toward a learning society, a society in which many things will be radically different from the existing school system: the place of learning, the sources of knowledge, pedagogical methods, duration of education process and other". The flexibility in terms of time and place of attendance today is very present, because the pedagogically shaped knowledge sources can be accessed to from various places and at different times (Tanić, Kondić and Stanković, 2011).

2. A RESEARCH FRAMEWORK

The consideration of the implications of the social environment on the organization of the physical environment in the pedagogical process builds on the results of the research work "Interconnection between physical environment and pedagogical process in elementary schools in Nis, Serbia" (Tanić et al., 2015), published in the journal *Current Science*. The results of this study define essential influential factors in the organization of the physical environment in terms of contextual changes in the pedagogical process. These are: function, structure, size, extensibility, mobility, flexibility, and (dis)continuity. To determine the primary directions for the formulation of the appropriate physical environment models, these factors were cross-linked with the completed typological analysis of the specific forms of social activities in the pedagogical process.

3. THE SOCIAL ENVIRONMENT

In the process of the selection and application of methods in the pedagogical process specific patterns of social activities are formed on the basis of which derives a model which is necessary for the development of the appropriate physical environment. Social patterns of activities in the pedagogical process represent certain types of relationships between teachers and school children as well as among school children themselves.

Different levels of social environment in the pedagogical process to a large extent are determined by the organizational role of teachers, which in terms of program requirements and in the context of selected teaching methods establish certain social patterns of activities, form the social environment, in specific relationship with the immediate physical environment. Therefore, it is possible to distinguish the following forms of social activities:

- Frontal form of work,
- Group form of work,
- Team form of work,
- Pair form of work (partner work)
- Individual and individualized forms of work,
- Combined forms of work.

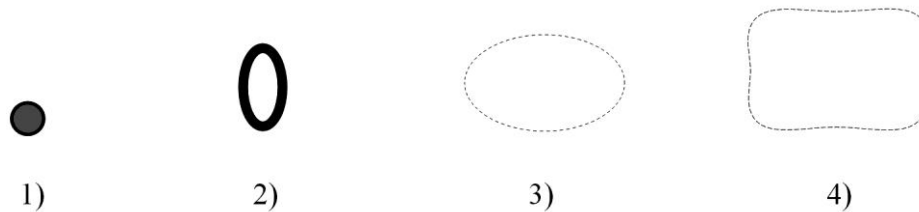


Fig. 1 Symbols: 1) school child 2) teacher 3) social unit 4) physical unit

3.1. Frontal form of work

Frontal form of work as the predominant form of pedagogical method in a traditional school implies collective teaching. So, the teacher teaches all the school children from one class at the same time. (Vasilev, 2007)

The division of a larger group of school children in temporary or permanent small groups involves cooperative learning forms in which school children solve specific problems and acquire knowledge. Each group can work on the same task, different tasks or on a part of a complex task. Regardless what type of cooperative work is in case, the participants are required to possess a high degree of self-discipline, teamwork and the ability to cope with a specific problem. The teacher organizes the process of learning, provides guidelines and instructions and supervises the work of the school children.



Fig. 2 Forms of pedagogical process: frontal (left) and group (right)

3.2. Group form of work

Group work is based on a cooperative work of several school children in completing tasks during the pedagogical process. Research and practice show that the most practical and most appropriate is for the group to consist of three to six, maximum of seven school children. (Vasilev, 2007; Vilotijević, 2000)

Groups may be formed and structured according to various criteria: according to a personal selection of participants themselves, friendship, sympathy or antipathy, in relation to the available funds and resources, according to the previous commitment and performance of school children and so on (Havelka, 1998). The number of school children in one group depends on many factors (teachers' instructions, tasks, division of roles, school children's abilities, resources, available physical space ...).

3.3. Team form of work

The team form of work represents a cooperative social form in which a team of school children and a teacher jointly plan, organize and implement certain segments of the pedagogical process. The teacher, as a member of the team, is fully committed to each school's children. On an equal footing with school children the teacher participates in the planning of the objectives and tasks, their achievements and, through discussion, in the assessments of the achieved results (Vilotijević, 2000). The team form of work is specific for its flexibility of time and place.

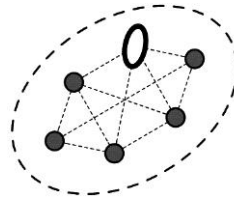


Fig. 3 Team form of work

3.4. Pair form of work (partner work)

The pair form of work (partner work) is a variant of group work, the smallest social unit in which the learning process takes place. The formation of pairs may be affected by the characteristics and abilities of school children, by their position in social and physical environment or by the free choice of the school children. On the basis of their mutual relations, two school children participate on equal footing in solving the same task (Vasilev, 2007). In terms of organizational models, there may be situations in which all pairs work on the same task, each pair works on a different task or group of pairs work on the same task.

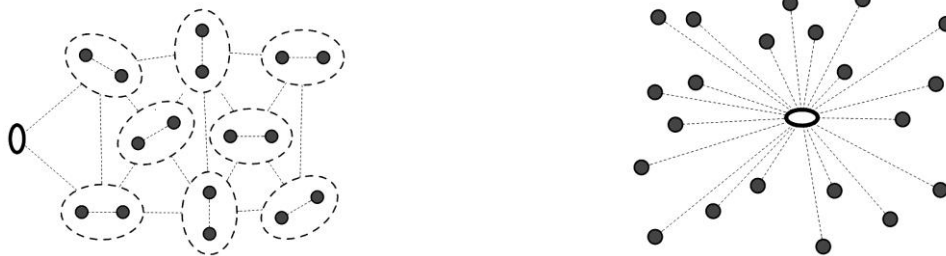


Fig. 4 Forms of the pedagogical process: pair form of work (left) and individual or individualized forms of work (right)

3.5. Individual and individualized forms of work

Individual and individualized forms of work assume an independent activity of school children in completing a particular task and in acquiring knowledge. The school child is the carrier of the pedagogical process, and occasional cooperation is achieved only with the teacher, in order to control or give additional instructions - usually in the early grades of elementary school. Individual activities allow flexibility in terms of time and place.

In the case of individual forms of work all school children do the same task independently. However, very often we come across a situation where the same task can be too difficult for lower average or too easy for above-average school children. Thus the belief was established that a substantial portion of individual work in the pedagogical process should be directed to the real personalities of school children. Such an approach, conceptually defined as individualized (differentiated) form of work, implies adjustments according to the skills and ability, motivation and the pace of learning of each school child individually (Vasilev, 2007; Vilotijević, 2000).

3.6. Combined forms of work

It is particularly important that in certain stages of the pedagogical process any individual or group activities are connected into a unity. The final section includes a generalization of work, through traditional non-modular forms of work such as the frontal work, teacher storytelling, the series of school children work presentations (individual - everyone talks about his/her work, representative - one talks in the name of others and individually-representative) or external collaborators, playing movie clips, presenting and exploring the phenomenon, conditions, processes and the like (Havelka, 1998; Vilotijević, 2000).

Combined social forms of work are the results of specific pedagogical situations. They are based on the interweaving of various social forms of work (group, team, pair, individual and individualized) which, as pointed out by psychologist N. Havelka (1998), "are taking place in a few lines, in several workplaces, and the outcomes are integrated into a unique individual or collective group production" - individual or group reports, concrete results, additional interpretations, additional reports and final discussions.

4. CONCEPTS OF PHYSICAL ENVIRONMENT

Based on the typological analysis of the social forms of activities, it is possible to establish a certain level of mutual relationship between the social and physical environment. The structures of these relationships are complex, dynamic environment, which in conjunction with the given context can get a different application forms. One should have in mind the concept of physical environment in terms of function, structure and size; then the level of flexibility and position of certain individual mobile elements; the possibilities for classroom space extension for differentiated activities of the school children; and in this sense of continuity / discontinuity (Tanić et al., 2015) (Fig. 5).

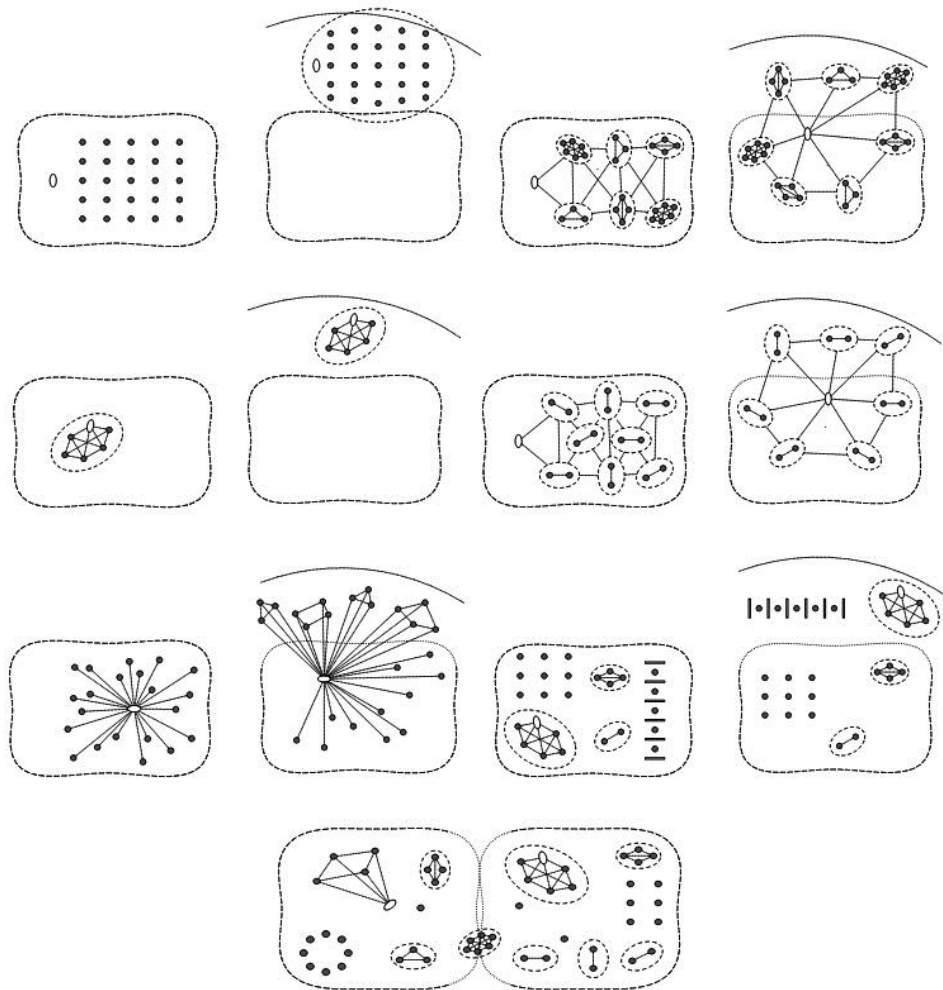


Fig. 5 Concepts of social and physical environment

At the same time, the following conceptual characteristics of physical environment can be noticed:

- "Multidisciplinary" environment in which it is possible to achieve various levels of pedagogical communication, designed to develop and connect different forms of social activities,
- The creation of a dynamic and flexible learning environment that fits the program contents, developmental level of school children and as well as their individual interests,
- Flexible structure of the physical environment, which optionally offers the possibility of contextual changes in the pedagogical process,

- Organization of the physical environment that allows teachers and school children to plan and develop different forms of group work, individualized and practical activities
- Individual, team and group forms of work require the structure of the physical environment equipped with furniture that in a relatively short period of time can be adapted to individual work, or activities for smaller or larger groups of school children,
- Organization of physical environment in which there is a choice, and the possibility for development of different levels of social interaction, whether it comes to pedagogical or leisure activities,
- The structure, shape and volumetric physical environment, it is necessary to create conditions that allow a certain degree of privacy in classroom areas, and at the same time enable adequate visual communication,
- Organization of the physical environment that allows simple transformations, and therefore the application of new methods in the pedagogical process.

Observing the school environment as a complex dynamic field, the qualitative properties previously mentioned point to the key directions in the organization of the physical environment. Their implementation is aimed at the formation of the physical environment that offers a whole range of intermediates for the implementation of different activities in the pedagogical process.

5. CONCLUDING REMARKS

The pedagogical situations previously discussed are causally connected with the need of teachers and school children to have environment which will enable the implementation of various teaching methods and, accordingly, the development of branched structures of school children social activities. The focus point of this connection aims at creating a polyvalent environment in which it is possible to achieve adequate development and connection of all the key factors of the pedagogical process.

The basic framework of the physical environment is usually modified according to the frontal form of activities in the pedagogical process. However, based on the observed different levels of social forms of activities, it can be concluded that beside the basic frame of physical environment, it is necessary to provide the possibility of creating various transitional and medial spaces in and outside of the basic framework of the physical environment. Thus structured physical environment should correspond to the different forms of social activities, particularly in terms of their connection, interconnection and differentiation. In this context, the specifics of the physical environment should be explored through further concretization of the concept presented.

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UTICAJ PEDAGOŠKIH KONCEPCIJA SOCIJALNE SREDINE NA ORGANIZACIJU FIZIČKE SREDINE

U radu se razmatraju implikacije socijalne sredine u savremenom pedagoškom procesu i njihova međuzavisnost sa fizičkom sredinom. Polazna pretpostavka je da se u pedagoškom procesu formiraju određeni socijalni oblici aktivnosti na osnovu kojih proističe model neophodan za razvijanje odgovarajuće fizičke sredine.

Tipološkom analizom socijalnih oblika aktivnosti u pedagoškom procesu određeni su različiti obrasci socijalne sredine. Pri tome, osnovni istraživački okvir podrazumeva sadejstvo različitih obrazaca socijalne sredine i uticajnih faktora na organizaciju fizičke sredine sa aspekta kontekstualnih promena u pedagoškom procesu.

Definisana kvalitativna svojstva ukazuju na kreiranje polivalentne fizičke sredine koja nudi čitav niz prelaznih oblika za realizaciju različitih socijalnih oblika aktivnosti u pedagoškom procesu.

Ključne reči: učenici, socijalna sredina, fizička sredina, pedagoški proces