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The place as factor of the pedagogical quality of space.

Dimitris Germanos

Professor

Department of Early Childhood Education
Aristotle University of Thessaloniki
Greece

dimitris.germanos@gmail.com

Abstract

Research has shown that aspects of the subject's behavior are governed by a sense of space that permeates social interactions, is reflected on the built space and gives the social environment both a material and a symbolic dimension. In this context, the place is a subjective version of the space, associated with the desires, the choices and the capabilities of the subject. The concept of the place acquires special interest in the educational process, because the child forms places spontaneously, whenever he has the chance to do so, having the innate need to develop a field of expression and constant interaction with his social environment. Can the spontaneous creation and functioning of places by the children become a permanent and pre-designed component of school space? This was the issue of a research study conducted in kindergartens in Thessaloniki, organized around an educational game activity in the classroom. We named *educational places* the micro-environments created by the children during this research. Observation has shown that an educational place is composed by a module of both spaces and activities, created and managed exclusively by the children. The evaluation of the data showed that the educational place, as element of school space, had multiple positive effects on the educational process. The most important effect was that a **new model of school space** emerged from the development and the functioning of educational places, which is based on an informal and continuous re-planning of space by the child during the educational process associated with his activity. This model highlights an interesting dimension of flexibility of space as a factor of the educational environment, which is exclusively owed to the process of its utilization. Adopting this model, the school space can be transformed into a field of educational places, directed to the acquisition of learning experiences.

Keywords

Educational place; School space; Flexibility; Educational process.

1. The anthropocentric quality of space

Research in the social sciences has shown that constructed and designed by man space cannot be determined exclusively by its material dimension or described only with its geometrical characteristics. Furthermore, space was considered as “one dimension of society” because it has a complex, anthropocentric quality which goes beyond its material characteristics. The approaches of space by various disciplines develop in two levels as to the concept of the subject, which complement one another. The first one is the collective subject, focusing on the social group, while the second refers to the small group as well as the individual. Both of them present aspects of the relationship between spatiality and social events, focusing on their psychological and social dimension (Berthoz, & Recht, 2005, Lévy & Lussault, 2003).

The approaches of space as the life environment of the small group and the individual, on which the present paper focuses, highlight the impact of space relationships on behavior. Non-material parameters of space go beyond its material dimension and provide it with “a quality related to us” (Wallon, 1978: 184). The interaction of material and non-material characteristics of space associates it with the standards, with values, attitudes, social representations and, in general, with the parameters of the relationship of the subject with its own environment, which contribute to the development of the behavior of the individual (Kaufmann, 2002). This is the reason why the forms of the behavior of the subject are governed by a sense of space, which affects social interactions, is reflected in the constructed space and gives the social environment both a material and a symbolic dimension (Chombart de Lauwe, 1988, Mead, 2006).

Thus, a relationship emerges that associates the subject (individual or small group) with the spatiality and the social events and this contributes decisively to the development of the conditions in the social and material environment of the subject. An interesting association of this relationship can be found in the work of Chombart de Lauwe, who studies the model “individual-group-society” (“individu-groupe-société”) as part of a cultural dynamics (dynamique culturelle). The cultural dynamics juxtaposes the organized society, as expressed through the function of its institutions, with the features of the subject’s everyday life that is of the social group, the small group or the individual. In this context, conflicts of interest, tension and twists are caused which develop a social dynamic spiral form, thus forming the social development (Chombart de Lauwe, 1982 & 1988).

According to Chombart de Lauwe, the space as a factor of cultural dynamics functions at three levels, which interact by associating the material elements with concepts and symbols, as well as with the practices that the subject develops in the space. These levels are the following:

- The space-object (*espace-objet*), which includes all the material elements, the design characteristics of which become carriers of social meanings and values
- The space-representation (*espace-représentation*), which is formed by meanings and symbols adapted to the characteristics of the subject
- The space-action (*espace-action*), which is formed by the practices that the subject develops in the space-object, in a context associated with the space-representation (Chombart de Lauwe, 1982, Remy, 2004).

Applying his theory, Chombart de Lauwe integrates the space into the cultural dynamics through a contrast pattern. On the one hand, his layout and aesthetics highlight the basic models of how the social environment should be and how it should function. On the other hand, the subject perceives the space and acts in it in his own way and sometimes he modifies the restrictions and the guidelines expressed by the institutional side of society. Thus, against this side of society and in his relationship to space, the subject himself expresses the way space could be and the way space and the social environment in which he lives could function. (Chombart de Lauwe, 1988). This process could be outlined in Figure 1 below (Germanos, 2006).

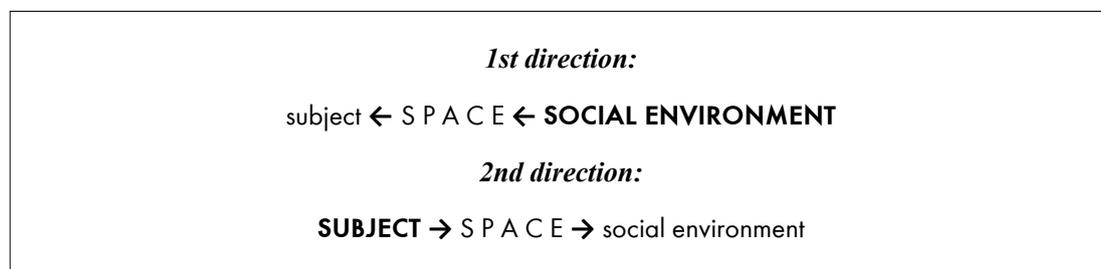


Figure 1.

The relationships with space in a cultural dynamics context.

2. The place, a subjective version of space

The anthropocentric approach of space is of special interest in educational research when referring to the space corresponding to the direct spatial and social environment of the subject (individual and small group). In this microenvironment, the subject develops communication and interaction practices, organizing his relations with others and forming representations of using the space as part of the educational process.

This microenvironment is defined as the “place” of the subject. In general, the place is a module of space and activities, being the immediate social environment of the subject on which his desires, options and capabilities are projected (Proshansky, Fabian & Kaminoff, 1983). According to Lévy & Lussault, the place includes both material elements (architectural spaces, structures, objects) and a set of non-material elements (relationships, practices, representations, experiences), linking the subject to his immediate environment. In other words, the place is “the smallest complex space module in society” (Lévy & Lussault, 2003).

The utilization of the place is of particular interest on a psychosocial perspective as the subject forms emotional bonds with the space that surrounds it. These bonds affect communication and interaction processes in which the subject participates, and they make his everyday life meaningful. The process of the use of the place by the subject personifies the place, it gives it an identity (place identity) and finally contributes to the development of the identity of the subject (Manzo, Devine & Wright, 2014).

As the psychosocial characteristics of the place go beyond its material dimension, research employed the question of measuring sizes in one place. The units of Euclidean geometry are not sufficient, because their standards cannot record the variable character which is given to the place by psychosocial factors associated with it. In response, Moles and Rohmer suggest a “subjective geometry” (géométrie subjective) which is based on the pattern “I-Here-Now” (Moi-Ici-Maintenant), which links the psychosocial factors to the material space and time (Moles & Rohmer, 1998). Lévy & Lussault define the place thanks to a changing “formative limit”, which is associated with the practices and representations of the subject and refers to the values and the rules he adopts being displayed in space through his activity (Lévy & Lussault, 2003).

In any case, research has shown that the study of the place requires a simultaneous approach in two levels. These are, on the one hand, the “objective” reality that represents the conditions of life and the material space which exist regardless of the subject and, on the other hand, the reality developed by the subject himself (Cresswell, 2013).

3. The educational place as a basic element of the school space: A research approach

The integration of the place in the educational environment is of particular interest because it exploits the spontaneous tendency of the child to form places, either alone or in small groups. Thus, his innate need to formulate a field of expression and constant interaction with his social environment can be associated with the content of the educational process (Marcouyeux, & Fleury-Bahi, 2011, Weinstein & David, 1993). Moreover, in this way the adaptation of the educational environment to the child is manifested, as the place is associated with his taking the initiative and it expresses his own characteristics in both material and non-material level (Germanos, 2014).

The educational interest of the place has led the writer to the idea of integrating places into the classroom. The aim was to integrate positive psychosocial issues related to places into the educational process. The question that arises referring to the design of the school space, on the one hand, and the educational process, on the other, is whether the spontaneous creation and function of places by children can be a stable and **predesigned** component of school space.

This was the main question in three educational researches carried out under the direction of the writer, in the period 2010-2014, in kindergartens in Thessaloniki in which the cooperative method of teaching and learning was applied. The first one was conducted by the writer himself and it studied the process of creation and function of places in the classroom (Germanos, 2014). The next two were conducted in PhD theses and had a similar object, but the first one was applied to the teaching of mathematics, and the second to the teaching of children's literature (Gloumpou, 2014, Zissopoulou, 2015).

The three research studies followed a common method of collection of primary data, with triangulation, which included:

- A non-participatory ethnographic method of observation
- Questionnaires which were semi-structured, of semi-open type
- Interview Guide which was semi-structured, of semi-open type

Furthermore, in the first of these three studies an interview guide with dolls was applied to record the concepts and ideas of the children.

The discourse analysis method was also common, in which the logico-semantic content analysis method was applied (Méthode Logico-sémantique, Paillé & Mucchielli, 2012). The "minimum sentence", which is the part of a period with independent meaning in which the verb is explicitly stated or implied, was determined to be the item.

In all these three cases the same field research process was followed, organized in three phases. It concerned the creation of places by children, during the development of educational games, with issues related to the educational process:

- Initially, the children worked with the teacher to plan the educational game and chose their own equipment and the space that they would use in the classroom.
- In the second phase, children, on their own again, using their own criteria,
 - o modified the space they had chosen in the classroom in order to adapt it to the scenario of the specific educational game
 - o developed the educational activity in the environment they themselves had created.
- Finally, in the third phase, they evaluated their experience, working in small groups.

In all the three research studies active and creative participation of the children in the educational process was recorded. Taking initiatives and decisions working within their team, they constantly reclaimed space in the places they had created and developed space practices that promoted the aims of the educational game.

Thus, from the places originally formed by the children a new space category came up, which included microenvironments associated with the educational process, which were called *educational places*. The three studies have shown that an educational place is a module of space and activities, which is created and managed exclusively by the children. The space has the quality of the “built-in-variety” (Dudek, 2000), because it is possible to be constantly modified, especially with successive rearrangements of the objects it includes made by children. Observation showed that these changes gave the place successive forms with themes and styles associated with the world of the imagination of children. As for activities, they had educational aims and content, which was in constant interaction with the characteristics of the place, both the real ones and the imaginary.

The constant interventions of the children provided educational places with a changing structure, which was based on successive rotations of their space, which corresponded to the development of the game activity. Thus, the educational place was in a state of continuous reorganization, which was based on the cooperation and the consensus of the children of the group, it was used for the acquisition of successive experiences by them, related to the theme and the aims of their game and it was the tool to complete it as well (Figure 2). The constantly changing structure of the educational place also affected its limits which were “changing formative limits” (Lévy & Lussault, 2003) because they were constantly changing, while they were adapting to the process of a continuous consensus of its reorganization. Formative limits and changing layout were associated with the practices and representations of the children during the game activity.

Finally, the observation showed the importance of the existence of spatial reference points, around which the educational game developed. Architectural elements of the space, equipment, furniture and various objects in the classroom functioned as reference points within the educational place. Their presence was decisive for three main reasons.

Firstly, because they were focal points for the space arrangement within the educational place. Secondly, because the educational game was organized around them and action focused on the reference points and was “flowing” around them, and finally, because they framed up the transition of the educational game from a previous form to the next one. This process was based on three factors:

- On the symbolic change of identity of a reference point. For example, a bench initially symbolized the external wall of a house, while in the next phase of the game it symbolized the deck of a ship,
- On the removal of a reference point or its replacement by another, so as a new reference point with a new role in the game was created, and
- On the enrichment of a reference point by adding some items, a fact which expanded its functionality or changed its identity, on a symbolic level mainly.

4. Discussion

4.1. The pedagogical function of educational places

The evaluation of the data showed that the educational place, as predesigned element of the school space had multiple positive effects on the educational process. Its main contribution to the process was the freedom of the child to form a relationship with the space, which had two parts. The first part was the freedom of the child to move in the space and form a physical relationship with the space without restrictions. The second part concerned the freedom of the child to associate the reality with the world of imagination, an association which provided the real space with meanings and symbolic identities which otherwise it would be impossible to have. This gave the child the opportunity to create all kinds of space required by the scenario of the game, without being limited by the real features of the space.

This new relationship of child-space, free from basic restrictions, provided the educational process with new perspectives. The child was now provided with freedom of movement and the ability to give a wide variety of meanings to the space elements (associating the real space with that of imagination) thus, leading to a flexible expansion of themes of the educational game, oriented to



Figure 2.
Continuous reorganization of a spontaneous "educational place".



Figure 3.
Classroom with predesigned areas that can work as "educational places".
Kindergarten "Manavi",
Thessaloniki.
Design: D. Germanos.

the concepts to learn. So, while the scenario of the game “was flowing” around the spatial reference points of the educational place, the children, who were playing, formed space experiences associated with the learning objectives of the game. The space did not simply frame, but also supported and developed the child’s activities and led to the acquisition of new knowledge (Williams & Brown, 2012). Thus, in two of the three research studies, the children learned new things in mathematics and children’s literature, two cognitive fields with significant differences. The specific quality of space was applied regardless of the difference of the cognitive fields, because the educational place functioned as “material education field” (Germanos, Tzekaki, Ikononou, 1997).

Moreover, as shown by the three researches, the participation of the children in the flexible and constant consensual reorganization of the educational place fostered the development of dialogue, as a form of communication, cooperation as well as interaction. The emphasis on face-to-face communication in their interactions supported their ability to speak up and argue adding creative features in their practices. In this way, the educational place had a significant contribution to the improvement of the social skills of the children.

The creation and functioning of the educational place, especially the process of constant consensual reorganization, was also associated with the development of a cooperative culture in the classroom. The cooperative skills of the children improved, the cooperative forms of communication and interaction were reinforced and rules were set as a basic element of coexistence collaborating in the group and the class.

Both action observation as well as analysis of the children’s discourse has shown that the *pleasure* and the *positive psychological climate* were considered to be important parameters of activation in the educational place. According to their responses, children derived pleasure when they, alone or with their group, intervened to transform the educational place, linking their relationship with the space to their active participation in the educational process. These data are supported by earlier research studies of our team on the transition from the traditional to the collaborative class in primary school (Germanos, Arvaniti, Grigoriadis, Kliapis, 2007^a & 2007^b).

The psychological climate in the experimental classes was positive, as it had characteristics of satisfaction and cohesiveness, while no facts of competitiveness, friction or serious difficulties were observed (Brock et al, 2008).

4.2. Towards a new model of school space: The changing classroom

The three researches presented a new model of school space, which does not concern the design of the building but its utilization. It is based on the provision of the establishment of developing educational places within the architectural space (Figure 3). Developing educational places are based on the relationship of child-space and link the establishment and the utilization of the space to the educational process. Their aim is to give the preschool child the opportunity to acquire space experiences that are associated with the concepts to be learned. According to the model, the classroom is not just a “container” of the educational process, having a static form. On the contrary, in the classroom two space qualities coexist:

- The *fixed* space. It refers to the architectural shell, consisting of steady material elements
- The *transforming* space. It refers to developing educational places, that is, flexible educational environments the space of which is enclosed in the architectural shell.

In the context of the cooperative teaching and learning method, which was adopted in the three research studies, the educational process is dynamic because it is linked to the communication and interaction conditions in the classroom. The developing educational places match the stimulus of space they offer and the way they function with the dynamics, creatively linking the space to the educational process. Furthermore, the space is transformed into a teaching aid in the classroom.

Adapting the educational place to the dynamics of the classroom is based on an informal and continuing redesign of the space, and in particular a rearrangement or replacement of the reference points in accordance with the development of the educational activity. In fact, it is a series of short-term rearrangements of space that are related to the teaching aims. When these aims are achieved, the space might regain its original layout.

The continuous rearrangements of the educational place are realized by the children's space practices during an educational game or some other form of activity in the classroom. In this way, the educational place:

- Acquires, actually or symbolically, the necessary equipment for the development of the activity
- Associates the content and the way it functions with the emerging forms of the educational process (like those resulting from the project method)
- Links reality with the imaginary world and thus, it overcomes the restrictions posed by the actual space during the activities.

The process of matching the educational place with the characteristics of the educational environment leads the relationship of the child with the space to two opposite and interacting directions. In relation to Figure 1, this relationship could be represented as follows (Figure 4):

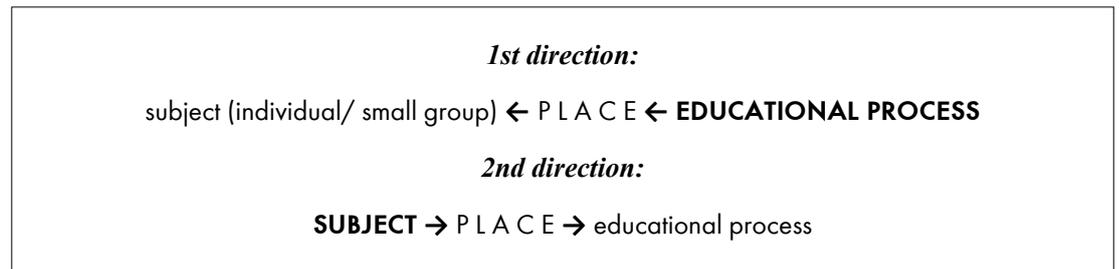


Figure 4.

The relationship child-space in the educational place.

The three researches have shown that educational places could constitute predesigned components of school space. And that this may be implemented not only in the case of designing a new space with flexible architectural features, but also in the case of redesigning already existing classrooms, by integrating educational places within these already existing classrooms.

Definitely, we should point out that the function of the model cannot be reassured with this particular approach in the designing or redesigning of the school space. The new design concept can be applicable only if it is in line with pedagogical concepts for a flexible development of the educational process, related to the interests and the capabilities of the child. In this case, an educational culture which recognizes the essential connection of the school space and the learning process with the world of the child is definitely a prerequisite.

Bibliography

- Berthoz, A. & Recht, R. (dir.), 2005. *Les Espaces de l'homme*. Paris: Odile Jacob.
- Brock, L. L., Nishida, T. K., Chiong, C., Grimm, K. J., Rimm-Kaufman, S. A., 2008. «Children's perceptions of the classroom environment and social and academic performance: A longitudinal analysis of the contribution of the Responsive Classroom approach». In: *Journal of School Psychology*, Vol. 46, 129-149.
- Chombart de Lauwe, P.-H., 1982. *La fin des villes*. Paris: Calmann-Lévy.
- Chombart de Lauwe, P.-H., 1988. *Culture-action des groupes dominés*. Rapports à l'espace et développement local. Paris : L'Harmattan, coll. Changements.
- Cresswell, T., 2013. *Place: A short Introduction*. Oxford, UK: Blackwell Publishing
- Germanos, D., 2014. "Rearranging the school space: From the normative space, to the space for the child." In: Tzekaki, M., Kanatsouli, M. (edit.). *Rethinking about childhood*. Thessaloniki: Dept of Early Childhood Education, Aristotle University of Thessaloniki, 448-467 (electronic edition) <http://www.nured.auth.gr/congress2014/> (in Greek).
- Germanos, D., 2009. «Le réaménagement éducatif de l'espace scolaire, moyen de transition de la classe traditionnelle vers une classe coopérative et multiculturelle». GER-FLINT. Paris: *Synergies/ Sud-est européen*, 2, 85-101.
- Germanos, 2006. *The Walls of Knowledge*. Athens: Gutenberg (in Greek).
- Germanos, D., Gavriilidis, S., Arvaniti, I., 2009. «School creates its own library: A case study». *School Libraries in the Picture*. Proceedings of the 38th Annual Conference of the International Association of School Librarianship (IASL). Padova, 2-4 September 2009 (electronic issue) <http://www.iasl-online.org/events/conf/2009>.
- Germanos, D., Arvaniti, A., Grigoriadis, A., Kliapis, P., 2007^a. "The pupils' perceptions on their new cooperative class and their criteria for assessment". In: Chatzidimou et al (ed.), *Greek Pedagogic kai Educational Research*. Proceedings of the 5th Panellenic Conference of the Pedagogic Association of Greece, Thessaloniki, 24-26.10.2006 Thessaloniki: Kyriakidis, vol. B, 487-495 (in Greek).
- Germanos, D., Arvaniti, A., Grigoriadis, A., Kliapis, P., 2007^b. "Teachers evaluate the process and the result of the development of cooperative environment in their class, in the context of action research". In Kapsalis, G.D., Katsikis, A.N. (eds.), *Primary Education and the challenges of today*. Proceedings of the Panellenic Conference, Ioannina 17-20.5.2007, University of Ioannina, Faculty of Education Disciplines, 294-301 (electronic edition) (in Greek).
- Germanos, D., Tzekaki, M, Ikononou, A., 1997. «A spatio-pedagogical approach to the learning process at early childhood: an application on space-mathematical concepts». *European Early Childhood Research Journal*, (EECRJ), 5, 1, 77-88.
- Gloumpou, A., 2014. "The pedagogical use of school space in developing cooperative educational environment. Application in a programme of mathematical activities in kindergarten. *Doctoral thesis*, Dept of Early Childhood Education, Aristotle University of Thessaloniki (in Greek).
- Kaufmann, P., 2002. *Kurt Lewin, une Théorie du Champ Dans les Sciences de l'Homme*. Paris: Vrin
- Keogh, B.K., 2003. *Temperament in the classroom*. Baltimore: Brookes Publishing.

- Lévy, J., Lussault, M., 2003. *Dictionnaire de la géographie et de l'espace des sociétés*. Paris: Belin.
- Manzo, L.C., Devine-Wright, P., 2014. *Place Attachment: Advances in Theory, Methods and Applications*. New York: Routledge
- Marcouyeux, A. & Fleury-Bahi, G., 2011. Place-Identity in a School Setting: Effects of the Place Image. *Environment and Behavior*, 43 (3), 344-462.
- Mead, G. H., 2006. *L'esprit, le soi et la société*. Paris: Le Lien Social (revised translation with comments on the former version) *Mind, Self and Society*. Chicago: University of Chicago Press, 1934).
- Moles, A., Rohmer, E., 1998. *Psychosociologie de l'espace*. Paris: L' Harmattan.
- Oungrinis, K.-A., 2012. *Transformable Architecture. Movement, Adaptation, Flexibility*. Athens: Ion Publishers (*in Greek*).
- Paillé, P., Mucchieli, A., 2012. *Analyse qualitative en sciences humaines et sociales*. Paris: Armand Colin.
- Proshansky, H.M., Fabian, A.K. & Kaminoff, R., 1983. Place-identity: Physical world socialization of the self». *Journal of Environmental Psychology*, 2, 57-83.
- Remy, J. (ed.), 2004. «Paul-Henry Chombart de Lauwe et l'histoire des études urbaines en France», *Espaces et société*, 1, 3/103.
- Wallon, H., 1978. *De l'acte à la pensée*. Paris: Flammarion.
- Williams, D.R., Brown, J.B.D., 2012. *Learning Gardens and Sustainability Education: Bringing Life to Schools and Schools to Life*. New York: Routledge.
- Zisopoulou, E., 2015. "The space as material field of education in the collaborative kindergarten. Application in the teaching of literary texts". *Doctoral thesis*, Dept of Early Childhood Education, Aristotle University of Thessaloniki (*in Greek*).