

ERD 2021**9th International Conference Education, Reflection, Development****THE EDUCATIONAL ENVIRONMENT IN KINDERGARTEN -
BETWEEN TRUTH AND CHALLENGE**

Diana Mariana (Boeriu) Sfăt (a)*, Cristian Nicolae Stan (b)

*Corresponding author

(a) Doctoral School Education, Reflection, Development, Department of Educational Sciences, Faculty of Psychology and Sciences of Education, Babes-Bolyai University, Cluj-Napoca, CJ, Romania,

boeriu_dianamariana@yahoo.com

(b) Department of Educational Sciences, Faculty of Psychology and Sciences of Education, Babes-Bolyai University, Cluj-Napoca, CJ, Romania, educatiedepartament@yahoo.com

Abstract

The educational environment is an important element, which shapes the personality of the educational institution, significantly contributing to increasing the quality of educational services provided. The interest shown by the managers of the educational units, as well as by the teachers, in the sense of improving the material base is a generator of performance and the facilitator of an “inclusive environment”. In the current conditions, when the evolution of information technology is so strong, the need for change, for renewal is acclaimed, and apart from capitalizing on the potential of these types of resources, we cannot think about school progress and success. Are kindergartens well prepared enough to be aware of the need to "renew" the material base? What does the material base of kindergartens look like at the moment? Can we classify the educational environment in kindergarten as an inclusive environment? There are some questions that were answered in the study we conducted at the level of educational institutions, preschool level, in Sălaj County. The existing educational environment at the level of kindergartens imposes the need for "upgrade" and always challenges, in order to identify the most effective solutions, which requires a long effort, based on rigorous and sustained planning.

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1. Introduction

The concept of environment is defined by Cristian Stan (2015) as: “the set of conditions and factors that characterize and define the space of individual existence,” including here “all the elements with which the human individual interacts directly or indirectly during its development”. (Stan, 2015, p. 8)

By operationalizing the concept, we can define the educational environment as the totality of the factors and conditions that characterize the school space and with which the beneficiaries of education interact directly or indirectly during the school activity.

The educational environment can be analyzed from a three-dimensional perspective: the physical space, classroom management and the relational climate.

The current study aims at an analysis of the educational environment in kindergarten, seen as the physical space where the didactic act is consumed.

A desideratum of pre-school educational institutions is the achievement of an “inclusive environment,” which will achieve “the empowerment of human resources involved in education with the necessary tools and attitudes, so as to create development opportunities for all children”. (Bucinschi et al., 2009, p. 33)

Curriculum for early education (2019) stipulates the need to organize the educational space in the form of centers, equipped with appropriate materials, according to the particularities of children's age and structured, by size, according to the needs of the group and the type of activities addressed. The library, the corner of the house / role play, science, arts, sand and water are the centers that can be found in the group room, and, as a number, there is the obligation to arrange at least two centers. The teacher must take into account the observance of the child's need for movement, as well as the satisfaction of the freedom of choice.

On the website of the Ministry of Education and Research (www.edu.ro), in the section for preschool education, you can consult three documents that make an inventory of the minimum base of endowment of preschool education units, respectively: “Standards and norms of endowment of preschool education”, “Annex 1 - Standards regarding teaching materials”, “Annex 2- Norm of minimum endowment in accordance with the standards”, all these documents being approved by Order 3850/2010.

The trend found in many kindergartens in Romania is the loading of the educational space. Furniture in large quantities, crowded in undersized rooms, impressive amounts of teaching aids, most often kept there for a long time, without being changed, a meaningless decoration of the rooms, all of which generate visible effects on children.

Worldwide, numerous models of organizing the educational environment have been validated, and various elements of them have been taken over by the Romanian education system.

A reference model, the Finnish model of organizing the educational space, is described very simply, but clearly, in the motto that defines it: “Less means more”. A study conducted by Carnegie Mellon University (2014) shows the effect of overload with the target group of kindergarten children, during the experiment, during the planned activities, the educational environment was changed, either by crowding it or by completely giving up the elements of decore. Highlighted the fact that, in the

conditions of overcrowding of the educational space, the child's concentration decreases and the learning efficiency is reduced, and the less the educational space is loaded with unnecessary elements, the children's performances increase significantly. (Fisher et al., 2014, pp. 1367-1368)

Analyzing the results of this study, we note that the visual environment plays a fundamental role, especially in the way in which preschoolers allocate their attention during the teaching act. Resilience to distracting environmental factors is also influenced by the individual characteristics of the child. The same study reveals that, for example, "children with less developed inhibitory control may be especially sensitive to distracting environmental factors." However, the idea of "sterilizing children's learning environments, eliminating all existing decorative elements in a group room: works of art or educational displays" is not supported.

Finnish schools are very concerned in creating a stimulating atmosphere ("tunnelma") to maintain calm of teachers and students, not to cause agitation, which is possible by achieving a "simplified learning space". (Walker, 2018, pp. 65-66)

Another example, in this sense, is the model promoted by Maria Montessori, who considers that an educational environment, which ensures an optimal development of the child, is one that gives the child independence and satisfies his needs, which denotes self-respect, offering him educational materials in accordance with his possibilities of expression, creating vast situations of exploration. In this situation, the educational environment is attractive, stimulating, interesting, safe. (Catalano & Albulescu, 2018, p. 309)

The Educational Alternative Step by Step provides numerous examples of organizing, in an efficient form, the educational environment. Moreover, at the level of Romanian preschool education, we find many common elements: the centers of interest, the thematic center, the moment "The morning meeting" etc..

The Reggio Emilia model promotes an educational environment that promotes learning by "capitalizing on one's own experience," encourages the establishment of "relationships with others, as well as with the materials and elements of the physical environment" and offers "opportunities for children to express themselves." This model promotes the idea that the physical environment is the "third teacher". (Vrășmaș, 2014, p. 199)

In a 2004 UNESCO paper in Bangkok, the effective physical environment is friendly and stimulating for the learning and development of all children. Thus, the document states that changing the traditional environment is imperative, that it will be the result of a long process and involves a team effort. The approach must have a holistic vision in terms of child development, be built on values and principles agreed by all factors involved in the child's education. This is not a change over-night, but an organization that involves rigorous planning, joint and sustained efforts, that produce spectacular effects, both in favor of the direct beneficiaries of education, respectively, children, and for educators, children's families and other educational factors involved.

A successful example, taken over in more and more education systems in the world, is the model based on modern educational practices: STEM, STEAM and STREAM. Being also a Recommendation of the Council of Europe, STEM education sets a new direction in terms of education, focused on the needs of the individual and in accordance with the requirements of today's society. The educational

environment, specific to this type of education, is a stimulating, attractive one, focused on the student's interests, which incorporates new technologies, with the traditional ones, existing, in order to stimulate involvement and collaboration, facilitating access to information and generating collaborative relationships group.

Scientific advancement and new information and communication technologies, as well as the profile of the current generation, called by Mark McCrindle, the "Alpha Generation", a generation with a special profile, totally different from that of previous generations, obliges education systems and, implicitly, the educational units, and of preschool level, to align with the current requirements, practically, to "renew" the educational environment.

Moreover, the educational environment, in the current context, has acquired new connotations, being extended from the physical environment, where the teaching process is traditionally carried out, to the online environment, where we can admit that learning can take place. This educational practice has sufficient advantages, which must be capitalized on. In this situation, the online environment thus becomes the space in which learning takes place, and digital environments generating personalized learning experiences, allow each student to progress at their own pace. (Albulescu & Catalano, 2021, p. 31)

It is very true that this "new" educational environment is created not only by the school institution, but is the result of a joint effort, supported together with the families of the direct beneficiaries of education.

2. Problem Statement

- The study conducted between January and May 2021, had as problematic the analysis of the educational environment, as a physical space where the educational act takes place, existing at the level of kindergartens in Sălaj County, from the perspective of organization and endowment with modern teaching aids.

3. Research Questions

At the level of preschool education, so far, there are no studies that highlight the organization, as well as the degree of endowment with modern teaching aids. Moreover, the official document, posted on the website of the Ministry of Education, which specifies the minimum standard of endowment with teaching aids (*"Annex 1 - Standards on teaching materials", "Annex 2 - Norm of minimum endowment in accordance with standards"*, all these documents being approved by Order 3850/2010 (www.edu.ro, section Preschool education)) has a considerable age and has not been updated.

4. Purpose of the Study

The aim of the study is to establish the level of endowment of kindergartens included in research, with modern teaching aids, given that the digitalization of education is an assumed goal, as well as establishing the impact of the educational environment on the quality of educational services provided.

The objectives of the study:

- establishing the configuration of the educational environment in the kindergartens included in this research;
- recording the opinion of teachers on the need to modernize the educational environment in kindergarten;
- establishing the impact of modernizing the educational environment on the quality of educational services, from the perspective of teachers.

5. Research Methods

A number of 265 teachers from 44 kindergartens in Sălaj County, both in urban and rural areas, participated in this study.

The research was conducted using the questionnaire method, which was distributed online, as well as the observation method (in order to investigate the material basis of the group / unit). The questionnaires were applied to the teachers. The questions included were varied (open, closed), and the answers provided were edifying. The observation was made on the basis of an established protocol and the records were recorded faithfully.

6. Findings

To the questionnaire addressed to the teachers, 265 answers were expressed, out of the total of 270 requests sent, respectively a percentage of 98.14%. We consider that the study was not flawed due to the fact that the percentage of respondents was not 100%.

The distribution, according to the environment of origin (educational unit) is as follows:

- urban environment - 157 teachers (59%);
- rural environment - 108 teachers (41%).

To the question **“How do you appreciate the existing educational environment at the level of the educational institution where you work?”**, The answers were as follows: totally adapted to the needs of education beneficiaries (14 - 5%), partially adapted to the needs of education beneficiaries (115 - 44%), not adapted to the needs of the beneficiaries of education (136 - 51%).

The question **“How do you describe an effective educational environment? (choose the answers you want)”**, had the following answers: inclusive (234 - 88%), stimulating (252 - 95%), securing (265 - 100%), interesting (187 - 71%), includes new technologies (175 - 66%), gives independence (198 - 75%), respects the peculiarities of age (263 - 99%), stimulates interpersonal relationships (242 - 91%), helps the child to orient (237 - 89%).

To the question: **“The educational environment in the kindergarten where you carry out your activity is organized on centres / areas / corners?”** The answers of the teachers were the following: yes (227 - 86%), no (38 - 14%).

The question **“Select the centres / areas / corners organized in the group room where you work”**, generated the following choices: Library (217 - 96%), Arts (227 - 100%), Construction (227 -

100%), the corner of the house / Role play (164 - 72%), Sand and water (114 - 50%), Science (164 - 72%), others (48 - 21%).

To the question **“What types of materials are usually used in the centres / areas / corners organized in the group room?”** The answers of the teachers were the following: traditional materials (164 - 62%), materials containing technical elements (54 - 20%), modern materials that include new information and communication technologies (47 - 18%).

The question “Materials found in the centres / areas / corners organized in the group room meet the following requirements (choose one or more options)”, determined the following choices: are current (101 - 38%), gender equality 97 - 37%), the principle of inclusion (88 - 33%), age peculiarities (154 - 58%), the existing space (179 - 68%).

To the question **“How do you appreciate the quality of the materials found in the centres / areas / corners organized in the group room?”**, The teachers' options are the following: high quality (82 - 31%), modest quality (94 - 35%), lacking quality (89 - 34%).

To the question: **“In terms of quantity, the materials found in the centres / areas / corners organized in the group room are ...”** the teachers answered as follows: more than necessary (43 - 16%), sufficient (83 - 31%), insufficient (139 - 52%).

The question **“What is the age (in years) of the materials found in the centres / areas / corners organized in the group room?”** Determined the following choices: under one year (0 - 0%), between 1 year and 5 years (52 - 19%), between 5 and 10 years (76 - 29%), over 10 years (137 - 52%).

The question "Do you consider it necessary to modernize the educational environment in the kindergarten where you work?" generated the following options: yes (243 - 92%), no (22 - 8%).

The question “What are the factors that influence, positively or negatively, the modernization of the educational environment in the institution where you work? (Choose one or more options)”, determined the following answers: the level of financing of the educational unit (239 - 90%), the manager of the unit (123 - 46%), the teacher (86 - 70%), the pre-schoolers (54 - 20%), parents of pre-schoolers (78 - 29%), local community (66 - 25%), other factors (28 - 11%).

To the question: “Do you consider that the modernization of the educational environment determines the increase of the quality of the educational services provided by the educational unit?” the teachers answered as follows: yes (252 - 95%), no (13 - 5%).

The question: "What is, from your point of view, the main argument that supports the need to modernize the educational environment in the institution where you work?", Generated the following choices: the profile of current generations (149 - 56%), the needs of the institution (37 - 14%), the advancement of technology (50 - 19%), others (7 - 3%), there is no need for modernization (22 - 8%).

To the open question, regarding the offer of **suggestions on types of materials that should not be missing from a kindergarten**, the teachers offered the following answers: STEM kits, lego, sensory reading books, cubes for different constructions, materials for science (magnifiers, microscope, metal detector, etc.), various dolls, household items, projector, computer, tablets, various board games, mini-labs, sensory panels, materials to explore, interactive games and toys, furniture that imitates reality, gymnastic apparatus , sensory mats, etc.

Following the application of the observation method (analysis of the material base of the group - standards regarding teaching / learning materials), the existing situation at the level of the educational units included in this research is presented as follows:

- to the indicator “There is a sufficient number of educational materials in the centers of interest / activity so that several children can use them at the same time” - never (24 - 56%), sometimes (4 - 9%), regular (5 - 12%), often (8 - 18%), very often (2 - 5%).
- at the indicator “The group room has materials that reflect multiculturalism: books in the mother tongues of the children in the group, different collections of pictures with children from all over the world, puzzle games or books about traditional dress in different countries / regions of globe, recordings with different languages / songs, images with people of different races, ages, cultures, gender, physical disabilities”- never (30 - 68%), sometimes (1 - 2%), regularly (3 - 7%), often (8 - 18%), very often (2 - 5%).
- at the indicator “**The group rules are displayed in the group room**” - never (7 - 16%), sometimes (3 - 7%), regularly (10 - 22%), often (14 - 32%), very des (10 - 23%).
- at the indicator “**The panel of responsibilities is displayed in the group room**” - never (14 - 32%), sometimes (6 - 13%), regularly (4 - 9%), often (10 - 23%), very des (10 - 23%).
- at the indicator “**Plans on civic and behavioral education (building a prosocial behavior) are used in the group room**” - never (0 - 0%), sometimes (7 - 16%), regularly (12 - 27%), often (5-11%), very often (20-46%).
- at the sign “In the group room there is a special space for enrolled children and where you can find pictures and information about each child (table with the picture of the children and their birthdays, picture or name and preferences, interests)” - never (14 - 32%), sometimes (5 - 12%), regularly (5 - 11%), often (8 - 18%), very often (12 - 27%).
- at the indicator “**The group room is equipped with a mirror (unbreakable)**” - never (35 - 80%), sometimes (2 - 4%), regularly (0-0%), often (0-0%), very often (7 - 16%).
- at the indicator “In the group room are displayed materials such as: graphics, images to raise awareness and value individual traits and characteristics of children” - never (24 - 54%), sometimes (4 - 9%), regularly (3 - 7%), often (7 - 16%), very often (6 - 14%).
- at the indicator “Children have games to practice expressing feelings, such as: Mime exchange, Illustrated feelings, Facial expressions, Illustrated events: sensations and feelings” - never (26 - 59%), sometimes (3 - 7%), regularly (7 - 16%), often (4 - 9%), very often (4 - 9%).
- at the indicator “In the Library Center there are books that reflect the identity, mother tongue, culture from which the children come” - never (31 - 70%), sometimes (2 - 5%), regularly (1 - 2%), often (8 - 18%), very often (2 - 5%).
- at the indicator “**Images of the ethnic groups from which the children come are displayed in the group room**” - never (31 - 70%), sometimes (2 - 5%), regularly (1 - 2%), often (8 - 18%), very often (2 - 5%).
- at the indicator “**Images of the ethnic groups from which the children come are displayed in the group room**” - never (31 - 70%), sometimes (2 - 5%), regularly (1 - 2%), often (8 - 18%), very often (2 - 5%).

- at the indicator “In the group room there are materials and equipment available to children that encourage children to experience various roles: role-playing costumes for the interpretation of different trades or household activities by both girls and boys, baby boy / girl” - never (28 - 64%), sometimes (4 - 9%), regularly (2 - 4%), often (8 - 18%), very often (2 - 5%).

Regarding the evaluation of the material base of the kindergarten - Minimum endowment norm, the following results were obtained: **games and toys**: yes - 61% (27), no - 39% (17), **audio-visual means**: yes - 32% (14), no - 68% (30), **audio-visual material**: yes - 30% (13), no - 70% (31), **graphic material**: yes - 48% (21), no - 52% (23), **various materials**: yes - 39% (17), no - 61% (27), **various games and toys**: yes - 64% (28), no - 36% (16), **various materials**: yes - 34% (15), no - 66% (29).

7. Conclusion

In line with the established objectives, the results of the research entitle us to conclude the following:

- the educational environment of the kindergarten contributes essentially to the increase of the efficiency of the educational act;
- the existing educational environment at the level of the educational units included in this research respects the configuration (structure) imposed by the normative acts in force, but it is deficient regarding the materials that are used to endow the educational spaces;
- the existing educational environment does not meet the needs of the current generation;
- the educational environment is “outdated”; “modern” elements are missing (especially in rural areas);
- in most research institutions, the educational environment is not inclusive;
- the materials found in the group room are of considerable age, are inefficient and insufficient to support quality teaching efforts;
- teachers support the need for a modernization of the education system, including the organization of the educational environment in kindergarten;
- teachers consider that an effective educational environment leads to very good school results;
- the lack of adequate funding of the preschool education system is the main factor that negatively influences the modernization of the educational environment;
- it is necessary to update the documents that regulate this component.

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