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The Model of the Formation of Socio-ecological Competences at Preschool Age

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Abstract: *Developing children's emotional skills is important because it helps forming and maintaining relationships with others, because it helps children to adapt to kindergarten and school, because it prevents the appearance of emotional and behavioral problems in childhood early and middle.*

Keywords: *pre-schoolers, competences, ecology*

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1. Introduction

A person's ability to adapt to the demands of life and to deal with problematic situations depends on the integrated functioning of his social skills and reasoning / cognitive functions (Ştefan & Kallay, 2007, p. 12). Social education programs have led to improvements in academic achievement. In the schools that participated in the studies (Goleman, 2008, p. 10), 50% of the children showed improvements in test scores.

Cognitive development is influenced by the level of development of children's socio-ecological skills, preparation and adaptation to the environment and school requirements. A child who has frequent reactions of fear when they have to complete a task will focus their intentional resources on managing the fear they feel, to the detriment of using resources to complete school tasks (Harris et al., 1981). Preschool children may have obvious individual age peculiarities in the development of social and ecological skills. Intrapersonal and interpersonal factors influence the level of development of socio-ecological skills. The genetic component specific to each child, as well as the influences of social and educational environment have a strong influence in the development of these skills (Howes et al., 1998). Socio-ecological skills are the process by which preschoolers learn the patterns of action, norms, symbols and values specific to society, turning them into rules of personal life.

The efficiency of the educational process depends, to a large extent, on the way in which education can respond to the problems of the contemporary world by offering pertinent and useful solutions. Socio-ecological education, which is the main concept of the paper, provides a relevant response as a "new education" to the issue of responsible integration of preschoolers in society. "New education" is defined in UNESCO's programs as responses to education systems to the imperatives of the contemporary world of a political, economic, ecological, demographic, health, etc. nature. According to G. Văideanu (1988, p. 70), the "new educations" represent the most pertinent and most useful answer of the educational systems to the imperatives generated by the problems of the contemporary world.

Socio-ecological education can be integrated at the level of moral education (in general education), intellectual education (in high school education), technological education (in vocational education), raises specific problems in certain areas or countries of the world and society. and educational. The methodology of valuing socio-ecological education aims at all dimensions (intellectual, moral, technological, aesthetic, physical) and forms (formal, non-formal, informal) of education. Socio-ecological education cannot achieve its goal if the actions it suggests to the preschooler do not spread around it, in the family, in the classroom, school, neighborhood.

The process moves from specific approaches to global, interdisciplinary approaches, which allow the deepening of social problems that require concrete solutions: peace, democracy, social justice, development, environment, food, health, research and health , (Tomşa, 2005). Socio-ecological education can be introduced either in the form of new educational disciplines, with an interdisciplinary character, or by creating interdisciplinary modules introduced within the traditional disciplines, or by infusing the existing school disciplines with the new contents. Emphasis will be placed on the structuring of an ecological culture, in an interdisciplinary perspective (geography, biology, economics, chemistry, sociology, hygiene, etc.), which also involves "development of behaviors that involve the internalization of responsible attitudes towards the environment" (Lisievici, 2005, p. 45). Therefore, it is important to make interdisciplinary connections, because social and environmental issues are examined in an overview, with the contribution of classical disciplines, but beyond them.

The introduction of "new education" in the education system implies changes in the mentality of educators and curriculum designers to give up the monodisciplinary and hermetic way of communicating knowledge. The efficiency of socio-ecological education can be appreciated only through the long-term effects on the behavior of the future citizen, the importance being the obligation to have an immediate utility, through practical applications and intervention in the preschool situation.

2. Theoretical bases of substantiating the model of socio-ecological competencies

The specific training model for the formation of socio-ecological competences derives from the training based on operant cognitivism, elaborated by M. Minder (2003). The most important pedagogical consequence of this model is relevant at the level of the correlation between the teaching and learning actions, intersected within the training activity. Teaching is “the action that aims to produce learning effects, ie behavior change” (Cristea, 1998). Being initiated by the teacher, the teaching aims to facilitate the tasks of acquiring the knowledge necessary for the student in the context of the model of spontaneous and / or organized learning. The interaction between educators and preschoolers is one of the general characteristics of the educational process, being designed and realized at the level of teaching - understood as an act of communication, organization, coordination and stimulation of students' activity. In the context of achieving socio-ecological education, teaching is approached from the perspective of producing results in the conduct of preschoolers, in order to facilitate learning and its effective production.

Fig. 1. Specific types of learning for the formation of socio-ecological skills

Source: Cristea, 2005

Pedagogical practice indicates the transition from teaching and acquiring information to the formation and development of preschool thinking, focused on developing the ability to operate with this thinking in everyday social life (Iurea, 2005, p. 147). It is obvious the change of the meanings that teaching has in the current education, by shifting the emphasis from the simple acquisition of knowledge and skills on the formation of competences. According to the specifics of the teaching activity, learning is the action generated as an effect of teaching and always involves "the assent and activity of the child, who must build his knowledge" (Minder, 2003, pp. 14-18).

The model for the formation and development of socio-ecological skills includes all components of the educational process: educational purposes, curriculum, methodology, evaluation (Table 1).

Table 1. Model for the formation and development of socio-ecological skills

Components	Characteristic elements
I.Educational purposes	<ul style="list-style-type: none"> - Education acquires clear and useful ends from a socio-ecological point of view. - The educational goals are formulated from a socio-ecological perspective and the training needs of preschoolers.
II. Curriculum	<ul style="list-style-type: none"> - Essentializes the didactic activity. - It is focused on the skills and needs of the preschooler. - Integrates learning areas. - The emphasis is on the action-training field. - Facilitates the work of the educator. - Provides the preschooler with clear, concrete and useful purchases.
III. Methodology	<ul style="list-style-type: none"> - Develops socio-ecological skills. - The activity of the teacher is focused on the training of preschoolers. - Learning is integrated. - Develops the preschooler's skills and ensures the preparation for social life. - Contributes to equal opportunities. - Integrates the teacher's activity. - It is focused on the training needs of the preschooler.

IV. Evaluation

- Assessment aims at the aims of learning.
- The results of integrated learning in socio-ecological competences are capitalized.
- The evaluation is focused on teachers and preschoolers.
- Competences provide a real basis for the integration of knowledge in the socio-ecological field.
- Assessment tests focus on the psychomotor field.
- The evaluation results become significant for preschoolers.

Source: Cristea, 2005

2.1. The purposes of education

The aims of education represent “the existing orientations at the level of educational policy in order to achieve the activity of formation-development of the human personality, according to certain values specific to the education system and process (Cristea, 1998, p. 167).

From the perspective of ecological training, the objectives of education are the following (Momanu, 2002):

- environmental literacy: this goal involves the acquisition of knowledge, skills and abilities by each citizen;
- awareness of the diversity and importance of ecological issues;
- correct understanding of the individual-environment relationship.

The general objectives of environmental education were set out at the Intergovernmental Conference in Tbilisi (1977), held under the auspices of UNESCO, where it was stated that environmental education (environmental education) must be the responsibility of all environment and environmental issues. Preschoolers will acquire the knowledge, attitudes, motivation, commitment and tools necessary to act, individually and collectively, in order to solve current problems and prevent new problems.

Regarding the social training of preschoolers, the basic purpose of early education is to "develop the ability to interact with other children, adults and the environment to acquire new knowledge, skills, attitudes and behaviors" (Ministry of National Education, 2019).

The objectives also aim at the knowledge, the practical approach, the clarification of the values and the acquisition of attitudes through which the preschooler must be helped to:

- understands that man is inseparable from his environment and that the negative effects of his actions affect him;
- acquires basic knowledge necessary to solve the problems of his environment;
- judges individual and collective responsibilities, committing itself to obtaining cooperation in finding solutions to problems;
- develop tools for analysis, reflection and action to understand, prevent and correct environmental shortcomings.

The affective, cognitive and actional educational objectives will be achieved within the socio-ecological training activities of the preschoolers' personality through specific modalities, in which the development of knowledge, which facilitates the access to documentation, tools and understanding is aimed at. application of knowledge.

2.2. Curricular contents

At the level of preschool education, socio-emotional development aims at the beginning of the child's social life, his ability to establish and maintain interactions with adults and children. Social interactions mediate the way children look at themselves and the world around them. The contents proposed for the social development of preschoolers are specified in the Curriculum for early education (Ministry of National Education, 2019) and are described in Table 2.

Table 2. Educational contents for the social formation of preschoolers
(from 3 to 6 years)

Nr.	Types of content	Behaviors
1	Interactions with adults and children of similar ages	1.1. Demonstrates confidence in known adults by practicing interaction with them
		1.2. Demonstrates abilities to ask for and receive help in specific problematic situations
		1.3. Initiates / participates in positive interactions with children of similar age
2	Prosocial behaviors, acceptance and respect	2.1. Expresses recognition and respect for similarities and differences between people

	for diversity	2.2. Makes and respects rules; understands their effects in terms of social relations, in familiar contexts 2.3. Practice, with support, the assumption of age-specific responsibilities, in various contexts 2.4. Practice, with support, negotiation skills and participation in decision making 2.5. Demonstrates acceptance and understanding towards other people in the immediate environment
3	The concept of self	3.1. Practice, with support, positive self-esteem in different educational situations 3.2. He promotes his self-image, through his manifestation as a unique person, with specific characteristics
4	Self-control and emotional expressiveness	4.1. Recognizes and expresses basic emotions, products of musical pieces, literary texts, art objects, etc. 4.2. Demonstrates emotional self-control skills

Source: Ministry of National Education, 2019

Topics that can be included in activities with preschoolers for environmental education are varied: "Protect nature", "Pollution in different seasons", "What happens in winter with plants and animals?", "What do we know about the forest?", "Nature wakes up to life", "Young tree, old tree", "What does nature teach us?", "SOS nature ...", "Colors and health ", "The appearance of my neighborhood, my village", "Ecological curiosities", "Earth, the living planet", " "Ecological masks and costumes".

2.3. Teaching methods

The didactic method is defined as "a way to follow in order to fulfill the pre-established instructive-educational objectives (Cerghit, 2006). The didactic process is a "more limited technique of action", "a component or a particularization of the method", "an element of support, or a concrete way of capitalizing on the method" (Moise, 1996, p. 99). The teaching methods used in socio-ecological education are grouped into four main categories, as represented schematically in Figure 2. These methods are adapted by the teacher according to the age groups of the children.

Fig. 2. Teaching methods used in ecological educations

Source: Cerghit, 2006

The use of action-based methods is useful in socio-ecological education for the formation of value judgments. The teacher will have the role of guidance counselor, helper, supporting preschoolers, being requested as a new source and clarity. Training strategies are effectively engaged in solving problems and problem situations (Minder, 2003, pp. 163-280). Solving socio-ecological problems is the basic procedure of functional education and involves the practical use of the pedagogical intervention scheme focused on the following stages:

- defining objectives in terms of competencies-capabilities-performances;
- the appearance of problems and problem-situations that activate the specific needs and interests of the students, as psychological and didactic resources;
- adaptation, readaptation and functional adaptation in a process of solving the problem or situation-problem.

The selection of teaching strategies depends on the type of problems and methodological solutions required by their structure. The stages underlying the instructive-educational approach to socio-ecological education are the following: exploring the problem, discovering and

practicing the solution, issuing the answer in an optimal way in relation to the proposed objectives, reorganizing the behavioral repertoire.

2.4. Evaluation

Evaluation is based on a function of expertise that is achieved through three strategies: initial, continuous (formative) and final (summative) evaluation. The interaction between the three strategies ensures the interactive, retroactive and proactive regulation of the training activity (Cristea, 2005, p. 173). The initial evaluation pays special attention to the type of retroactive adjustment, resulting from the verification of the results obtained in relation to the previous activity (lesson, group of lessons, subchapter, chapter, study mode, etc.). The evaluation techniques used employ a type of interactive regulation that is possible and necessary in any form of evaluation adopted. Through the employed functions, diagnosis and prognosis, the initial evaluation anticipates the way of carrying out the training activity, which also implies a training of the type of proactive regulation.

The formative evaluation aims at continuously informing the teacher on the degree of achievement of the objectives in order to make some decisions of regulation-self-regulation of the training activity. It has as indicators for measuring and appreciating the results the cognitive functions engaged in the development of the new behavior and the evaluation criteria of the curricular contents included in the structure of the employed objective. The structuring and integration of the evaluated knowledge at the level of the new acquired behavior supposes the detachment from the initial situation and the decontextualization of the learning by:

- reorganization of knowledge, involving verbalization of acquisitions, construction and interaction of skills and their integration into the network, through disciplinary matrices, synthesis activities, operationalized textbooks;
- exercising the new competence in a spiral through numerous exercises and recurrent behaviors in pedagogical regime of differentiation, with tasks of consolidation and extension of the curricular contents, fulfilled in terms of convergent and divergent thinking;

- generalization of skills and their capitalization through storage (reduction, fixation, coding, active memorization, systematization), automation and transfer (disciplinary, intradisciplinary, interdisciplinary, extra-disciplinary,transdisciplinary), decontextualization, reconceptualization.

The formative evaluation fulfills a predominantly pedagogical purpose of continuous regulation-self-regulation of the activity. Achieving this goal implies, on the one hand, the observance of the qualities of the formative evaluation which has an analytical, continuous, diagnostic, corrective character. On the other hand, the capitalization of these qualities typical to the formative evaluation creates premises for the optimization of the final evaluation.

Summative evaluation fulfills a social function, of certifying the results at the end of an activity/activities. This veiling strategy involves several operations:

- the appreciation of the acquisitions at the level of criterion evaluation in relation to the achieved performance objectives, which allows the student's self-evaluation, and normative in relation to the general norms, which determines the students' hierarchy;

- grading the products in relation to the established objectives, by applying standardized tests;

- certification of competencies that express the sum or product of knowledge (savoir), strategies (savoir-faire), attitudes (savoir-être) and the final expression of school success / failure in relation to which a compensatory pedagogy can be proposed.

The share of the three types of regulation depends on the specifics of each evaluation strategy. The combined use of the three strategies gives the assessment complexity by engaging and structuring acquisitions through specific techniques of adjustment, integration and appreciation of the new behavior.

3. Conclusions

The task of harmonious development of children in preschool age consists not only in reaching a certain level of knowledge, skills and abilities; the appropriation of some efficient methods and procedures of varied

knowledge of reality, but also in development at a level advanced in their emotional life, in their ability to be socially oriented, to be in a just moral position, which has not only a narrow pedagogical significance, but also a deeply social one.

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