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**LEARNING THROUGH COOPERATION AND THE PROJECT
METHOD IN PRE-SCHOOL EDUCATION IN ROMANIA**

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Abstract

In the curriculum for preschool education in Romania have been many changes since 1990. For the development of pupils, in official documents and in pedagogical literature, it is recommended to practice learning through cooperation and using the project method. Discussions with teachers on preschool education showed they have different opinions and some difficulties. The purpose of this study is to investigate the preschool teachers' views on cooperative learning and on using the project method in pre-school education in order to identify some proposals for optimizing didactic activity. A questionnaire completed by 46 educators was used to collect data. Regarding the use of cooperative learning in kindergartens, most preschool teachers say that group work and cooperation are characteristic in their kindergarten groups. The fact that children learn more easily from one another is considered the main reason why activities are organized through co-operation in kindergartens, but also it is the most important advantage of cooperative learning. Regarding the use of the project method in kindergartens, the preschool teachers highlight several advantages: learning activities are integrated, including their contents; achieving work team; adult involvement. Romanian preschool teachers face more difficulties in organizing project-based learning in kindergartens: requires many teaching materials; the large number of children in a group; the high differences between children in the combined groups; requires a large amount of time for preparing; limited space for group activities. Despite all these difficulties, the surveyed preschool teachers prefer project-based learning, as opposed to traditional learning.

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1. Introduction

In official documents in Romania (MECT, 2008), it is mentioned that in the curriculum for preschool education have been many changes since 1990. The syllabus emphasizes that kindergarten activities aim at the intellectual, affective, social and physical development of each child. Among the finalities of early education (from birth to 6/7 years) mentioned in this document we note: "developing the capacity to interact with other children and the environment"; "encouraging explorations, exercises, trials and experiments as autonomous learning experiences"; "the discovery by each child of his or her own identity, autonomy and the development of a positive self-image" (p. 6-7). These goals can be achieved through cooperative learning and by using the project method (Bocoş, Catalano, Avram, & Someşan 2009; Dulamă, 2012; Glava, Pocol, & Tătaru, 2014; Magdaş & Pop, 2015).

In the pedagogical literature in Romania, cooperative learning is considered to be a method of developing the active spirit (Bocoş, 2013), and the project method fits either in the category of complementary assessment methods (Blândul, 2004) or in the category of learning by action practice methods (Cerghit, 2006). Learning through co-operation contributes, among other things, to changing attitudes, behaviours, mentality (Alexandrache & Caciuc, 2013), and project realization has an important role in the cognitive development of those who achieve them, in attitudes, contributes to self-regulated learning and in the development of critical thinking (Zimmermann, 2000; Magdaş & Pop, 2015).

Cooperative learning and the project method were used, with other names, in the Romanian education system before 1990 (Dulamă & Ilovan, 2015, 2017). These methods are currently recommended to be used in order to approach the content in an integrated way (MECT, 2008), to ensure a holistic knowledge of reality. An integrated study is considered to be the one in which "children broadly explore knowledge in various subjects related to certain aspects of the environment" (Humphreys, Post, & Ellis, 1981, p. 11).

In many studies, it is recommended to develop projects in nature, thus contributing to environmental education and education for sustainable development (Dulamă, Ilovan, & Magdaş, 2017; Ilovan et al., 2018). For a profound understanding of reality, both pre-school children and students need to be guided in the projects by teachers, either through conversation or through other methods or tools (Magdaş & Pop, 2015; Dulamă & Ilovan, 2016).

2. Problem Statement

After 1990, in the pedagogical papers, we notice an opening tendency to the approach of the project method, of the integrated activities, of the group interactive methods, etc., also a visible trend through their application in the Romanian pre-school education system (MECT, 2008). Discussions with teachers for preschool education highlight the existence of different opinions and problems in practice when transposing the provisions of the official curriculum regarding the organization of integrated activities, group activities, including the development of educational projects. By applying a questionnaire we aimed to determine whether those perceptions were of a general nature or were only manifested by a small number of pre-school education teachers.

3. Research Questions

What is the frequency of organizing group activities in kindergartens? What are the reasons for the teacher to organize group activities? What effects do group activities and project method have on children? What is the role of the educator in implementing the project method? What disadvantages and difficulties exist in applying the project method to kindergartens?

4. Purpose of the Study

The purpose of this study is to investigate the teachers' views on cooperative learning and the use of the project method in pre-school education in order to identify some proposals for optimizing didactic activity.

5. Research Methods

5.1.Participants

46 teachers completed voluntarily the questionnaire. 56% of respondents have a teaching experience of more than 20 years, and the others less. 60% of the preschool teachers have the first didactic degree (which is the highest stage of the teaching career in Romania), and the others have the second didactic degree, the definitive didactic degree or are debutants. 56% of the preschool teachers teach in the urban area. The respondents' level of expertise and the years of teaching experience ensure the response credibility. In research, was involved the teacher for preschool education Moldovan Krisztina Rita, who developed the questionnaire based on the study of several bibliographic sources and accepted using its results in this study.

5.2.Procedure

Data collection was conducted using the questionnaire survey method. The questionnaire applied by the preschool teacher had three parts. The first part had 3 demographic items referring to the years of teaching experience, the teaching degree and the environment where participants teach. The second part contained eight items (questions 1-8) regarding the use by the teachers of the group activities in their kindergarten activity, but also the way that pupils cooperated within the group. Out of these, 3 items were dual-choice Yes / No, 4 multiple choice, and one open item. The third part of the questionnaire contained a total of 6 questions (questions 9-14) and targeted learning through the project method. Out of these, 2 items were dual-choice Yes / No, 2 multiple choice, and two open items.

6. Findings

6.1. Analysis of teachers' perceptions about the use of cooperative learning in kindergartens

All preschool teachers, regardless of their years of teaching experience or age, say they use the groups' activity and on their kindergarten groups prevails an atmosphere of cooperation. Teachers were asked to reflect on the situation in their group of pre-schoolers and to determine the share of the types of activities (group, frontal and individual activities) they used during a school year. By doing the average of the answers, the group activity has a percentage of 40%, being higher than the other types of activities, the frontal one accumulating 35% and the individual one 25% of 100%. This result is also explained by

the fact that in the current curriculum for pre-school education it is necessary to organize some groups' activities. By observing the kindergarten activity, the groups are formed either spontaneously or according to certain criteria established by the educators. The fact that both individual and frontal activities have a relatively large proportion is explained by the fact that all three types of activities are important in the teaching process conducted in pre-school education.

Regarding the reasons of preferring group activities, the preschool teachers mentioned several that were, in fact, advantages of group activities. Analysing the answers to this question (Table 1), we deduce that group activity helps pupils learn more easily from one another. Also activities carried out in this manner are more effective than frontal or individual ones, because pupils are actively involved in their realization, develop their communication and cooperation skills, help increase children's responsibility towards their own learning, but also towards the group. These results confirm the kindergarten observations that the relations between the members of the group are more numerous and more diversified than during the activity with the whole group when they usually have a passive role. Pupils are more active and spontaneous when they work in small groups, communicate and interact more with group colleagues, encourage each other to solve tasks or to carry out collective work, educate team spirit and help others, thus learning the human behaviour and satisfying personal needs of compassion and appreciation.

Table 01. Preschool teachers' opinions about the benefits of group activity

Identified aspects	% of respondents
Children learn more easily from each other.	36.9
Activities are more efficient, and performance improves.	23.9
Children learn to cooperate with colleagues in the group.	17.4
Children contribute with ideas and solutions to the task.	13
Children communicate with colleagues more easily.	8.7

Referring to group work, preschool teachers were asked to specify how much the pupils were involved in solving group tasks. Almost all preschool teachers (45, representing 97.8%) consider that pre-school children are very much or pretty much involved in performing tasks at the group level. From the discussion with the questioned teachers, this is also due to the fact that in this type of activity the resources can be better used, the didactic material is no longer the same for all, it is more diversified and the time available for its handling and its exploitation by the pupils increases significantly.

By another question, teachers were asked to express their perceptions about the effects of cooperative learning on pre-school children with weaker performances. All teachers considered the activities carried out through cooperation between pupils, both in the freely chosen activities and in the compulsory activities, determined the improvement of the results of each child.

Referring to the fact whether the emotive pre-schoolers become more courageous in groups activity than in individual task, all preschool teachers find an improvement of pre-school children self-confidence in group activities, 67.4% of whom consider this to be often, and the remaining 32.6% sometimes.

To establish the biggest role of cooperation activities, several variants were offered. For each variant a score of 1 to 7 had to be chosen by respondents, 7 points being awarded for the answer with the greatest importance. After calculating the scores in Table 2, it is noted that the most important role of cooperative learning, in the opinion of the questioned preschool teachers, is to facilitate learning from each other among pupils. The next places are for the development of communication skills and the increase in the performance of children participating in the activities organized in this manner.

Table 02. Preschool teachers' opinions about the role of cooperation activities

Analysed aspects	Score
Cooperation activities facilitate learning from each other.	264
Cooperation activities develop communication skills.	220
Cooperation activities increase performance.	194
Cooperation activities develop the spirit of competition.	188
Cooperation activities improve the level of knowledge.	154
Cooperation activities bring the children closer.	146
Cooperation activities contribute to increasing self-esteem.	140

6.2. Analysis of teachers' perceptions about project learning in kindergartens

From the analysis of the results to the first question about the use of the project method in the kindergarten, we find that all preschool teachers claim to apply it to the activity with preschoolers. All teachers think that learning through projects is more effective than learning by traditional methods.

The preschool teachers were asked to state the degree of agreement or disagreement on the fact that the teacher-child interaction during the project favours knowledge systematization. 38 (82.6%) of the preschool teachers agree with this statement, while the remaining 5 (17.4%) of them express their total agreement. In didactic papers (Dulamă, 2013), in describing the steps followed by learners are predominant the activities in which they work individually or in groups, without being monitored by the teacher. In realizing the projects, in order to ensure good quality knowledge and research, pre-school children need more support, and the educator is a "careful guide, a person - a resource that supports the respect of the individual learning pathway, the child and their own rhythm"(Preda, 2002, p.7).

Two items asked teachers to highlight two advantages and two difficulties of learning using the project method. We centralised the advantages identified by teachers in Table 2 and difficulties in Table 3.

The main advantage of the project method identified by half of the respondents is that learning activities are integrated. This is obvious because in an integrated holistic approach, the boundaries between information coming from various sciences disappear. Learning activities are consistently and harmoniously blended into a unitary scenario, in which pre-school pupils perceive and represent the reality as an ensemble. The project method is probably the most appropriate method for the integrated approach and for the direct knowledge of reality by pre-schoolers. Teachers identify several benefits of using this method in pre-school education (e.g. pupils can propose themes, teamwork, parents', grandparents' and experts' involvement, stimulation of creativity). In addition, through the direct

observations made in kindergartens, we found out that during the realization of a project, the educator combines a range of activities (at choice, communes, games and afternoon activities) and various organizing ways (individual, group, frontal), thus giving pupils more contexts in which they practice in a motivating and pleasant way, active learning and learning through experience. Thus, the project method brings more lightness and more coherence to the teaching process, by correlating learning activities with the child's social and cultural life.

Table 03. The advantages identified by preschool teachers of learning using the project method

Identified advantages	% of respondents
Project activities are integrated.	50
The themes of the project are proposed by children.	36.9
The evaluation of the project is done through collective work.	32.6
The project method can be applied at any age level.	30.4
Projects involve parents, grandparents, different fields' specialists.	28.3
Projects stimulate creativity.	21.7

The greatest difficulty of carrying out a thematic project mentioned by over 60% of preschool teachers is that it requires many teaching materials. Since the kindergarten does not have a special fund for thematic projects, the parents' help is used to provide materials, but most of the time they get too late in the kindergarten. In addition to the lack of materials, the large number of children in a group and the control of the areas of incentive are other difficulties in the implementation of the projects in the pre-school education in Romania, mentioned by some 40% of the educators. Being many children in some groups (sometimes over 30 children), even if the teacher divides them into two or more groups, it is difficult to maintain the order required to carry out educational activities, to monitor the activity, to pay attention and support each child. If teachers supervise and support pre-schoolers in a group, the other group, not being supervised, may have difficulty in solving tasks. Also, a combined group, where children have different ages, a different level of development, and the existence of individual differences, is another problem that makes it more difficult to carry out thematic projects, with 28.3% of the educators mentioning this issue.

Table 04. The difficulties identified by preschool teachers of learning using the project method

Identified disadvantages	% of respondents
The project method requires a lot of materials.	60.9
Large number of children in a group.	41.3
Controlling stimulus areas.	39.1
Individual differences between pre-schoolers.	28.3
The project method requires a large amount of time for preparing.	19.6
Lack of space (some of the group rooms are very small).	10.9

Although preschool teachers have pointed out that there are a lot of difficulties in developing kindergarten learning through projects, when they were asked to choose in the future between traditional learning and project-based learning, all 46 educators have preferred the project learning. This reflects the fact that teachers are aware of the benefits of children's involvement in various projects, motivating them to find solutions and overcome the material difficulties, the lack of time and human resources to provide them with an optimal learning environment (Table 04).

7. Conclusion

Regarding the use of cooperative learning in kindergartens, most preschool teachers say that group work and cooperation are characteristic in their kindergarten groups. This result is also explained by the fact that, in the current curriculum for pre-school education in Romania, it is necessary to organize some groups' activities. The fact that children learn more easily from one another is considered the main reason why activities are organized through co-operation in kindergartens, but also it is the most important advantage of cooperative learning. Regarding the use of the project method in kindergartens, the preschool teachers highlight several advantages: learning activities are integrated, including their contents, achieving work team, adult involvement. Romanian pre-school teachers face more difficulties in organizing project-based learning in kindergartens: the need for many teaching materials, the large number of children in a group, the big differences between children in the combined groups, the project method requires a large amount of time for preparing, and limited space for group activities. Despite all these difficulties, the surveyed educators prefer project-based learning, as opposed to traditional learning. At the end of the research, we note the benefits of cooperative learning and project-based learning for pre-schoolers, as well as the difficulties faced by educators in organizing learning activities, many of which can be removed by increasing funding from the state budget and by taking other official measures.

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