

Teachers' Opinion Regarding the Contribution of Outdoor Activities in the Development of Preschoolers' Cognitive Skills

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Abstract

Keywords:

outdoor activities; preschool;
cognitive development.

The educational environment is an active and decisive factor in the preschoolers' educational process. The quality of the educational environment influences the children's progress in all areas of development. So, recognizing the indisputable value of nature in human life, one can say that, in addition to the activities realized in the classroom, the outdoor activities also contribute to the preschoolers' global and harmonious development.

Starting from the premise that outdoor activities contribute to the preschoolers' development of the cognitive skills, through the conducted study the intent was to identify the ways in which these are integrated into the daily program of preschoolers (within personal development activities, in freely chosen games and activities or in carrying out activities in experiential fields). The results of the study should also offer examples of good practices regarding the organization of learning situations in the outdoor environment.

Another objective set is to find out what are the facilitating factors and what are the hindering factors preventing the good performance of these types of activities. In order to find out the answer questions proposed, the survey method based on the questionnaire was used and applied to a number of 100 preschool teachers working in the Caras-Severin county. The conclusions emphasize the major contribution of outdoor activities to the development of the children's cognitive skills, but the ways in which these activities are carried out differ, being characterized by a great thematic variety.

Zusammenfassung

Schlüsselworte:

Outdoor-Aktivitäten; Vorschule;
kognitive Entwicklung.

Das Bildungsumfeld ist ein aktiver und entscheidender Faktor im Bildungsprozess des Vorschulkindes. Die Qualität des Bildungsumfelds beeinflusst den Fortschritt des Kindes in allen Entwicklungsbereichen. In Anerkennung des unbestreitbaren Wertes der Natur im menschlichen Leben können wir also sagen, dass zusätzlich zu den Aktivitäten im Gruppenraum auch die im Freien organisierten Aktivitäten zur globalen und harmonischen Entwicklung des Vorschulkindes beitragen.

Ausgehend von der Annahme, dass Outdoor-Aktivitäten zur Entwicklung der kognitiven Fähigkeiten von Vorschulkindern beitragen, wollen wir mit der durchgeführten Studie die Art und Weise identifizieren, wie sie in den Alltag von Vorschulkindern integriert werden (im Rahmen von Aktivitäten zur Persönlichkeitsentwicklung, bei frei gewählten Spielen und Aktivitäten oder bei der Durchführung von Aktivitäten in Erfahrungsfeldern), sowie Beispiele guter Praktiken für die Gestaltung von Lernsituationen im Outdoor-Umfeld aufzeigen.

Wir haben uns auch vorgenommen, herauszufinden welche Faktoren die gute Durchführung dieser Art von Aktivitäten erleichtern und welche Faktoren sie behindern. Um die Antwort auf unsere Fragen herauszufinden, haben wir die auf dem Fragebogen basierende Umfragemethode verwendet, die wir bei einer Reihe von 100 im Kreis Caraș-Severin tätigen Vorschullehrern angewendet haben. In den Schlussfolgerungen wird der große Beitrag von Outdoor-Aktivitäten zur Entwicklung der kognitiven Fähigkeiten von Kindern hervorgehoben, die Art und Weise, wie diese Aktivitäten durchgeführt werden, ist jedoch unterschiedlich und zeichnet sich durch eine große thematische Vielfalt aus.

1. Introduction

During the last years, the dynamism, the need for adaptation and the set of changes in the evolution of society represent real challenges that the educational system in our country tries to successfully face. Although we live in the age of digitization, its nature and role are more relevant than ever within the education system. Therefore, people try to regain the connection with the environment by using elements from nature in the educational process.

Leonardo da Vinci, a notable figure in history, expressed his deep faith in the infinite of nature potential as an inexhaustible source of learning with a quote in which he recognized its undeniable value "What I see in nature is an endless learning". Nature is a teacher who constantly exercises its job for all past, present and future generations, and every moment spent in the natural environment can be considered a real lesson in teaching new knowledge.



Outdoor education is not an innovative concept, but has deep roots in the history of the education systems evolution around the world. Throughout the ages, nature has been a fundamental foundation where individuals have learned and developed, and it continues to play a significant role in this today. Therefore, children of all ages have always appreciated outdoor activities, because changing the learning environment brings with it motivation, innovation and enthusiasm.

2. Theoretical foundation

The preschoolers' cognitive development is determined by the organization of an engaging learning environment, mobilizing creative energies and constructive emotions. The present Curriculum for Early Education supports the achievement of an appropriate balance between learning and the harmonious development of the children's personality and offers teachers the opportunity to choose a learning environment rich in experiences (Curriculum for Early Education, 2019). The child is an active subject in the learning process, and the child's development is dependent on the opportunities offered by the daily routine, the interactions with others, the organization of the environment and the learning activities/situations, specially created by the adult.

The outdoor environment represents for the child a favourable place for exploration, discovery and experimentation, being in this way a decisive factor that contributes to an active learning and centred on the preschooler's because, within this environment, the child is stimulated with the help of all the senses. The praxiological dictionary of pedagogy defines outdoor activities as "recreational and fun activities, personal and social development programs, nature hikes, mountain trips, environmental education, etc. Thus, these activities have the following main characteristics: they offer the possibility of direct contact with nature to live experiences in nature; stimulates the joy of being in nature; supports the learning process of students with different learning difficulties; develops team spirit, helping and fair play; it offers countless physical, emotional, mental benefits, which later contribute to the well-being of the individual and the group (Bocoș, 2016, p. 43).

One of the theoretical foundations is represented by the theory of multisensory stimulation. This theory is the result of evolution in thinking and research in the field of education, cognitive development and human learning.

3. Purpose of study

Starting from the premise that outdoor activities contribute to the development of the preschoolers' cognitive skills, the study conducted has as objective to identify the ways in which these type of activities are integrated into the preschoolers' daily program (within personal development activities, freely chosen games and activities or in carrying out activities in experiential fields), as well as examples of good practices regarding the organization of learning situations in the outdoor environment. Another objective was to find out what are the factors that facilitate (the arrangement of the outdoor space, the existence of material resources) and the factors that hinder (the lack of an outdoor space, the lack of material resources) the good performance of these types of activities.

The main research questions that guide the directions of action are:

1. How can outdoor activities be successfully integrated into the daily schedule of preschoolers, so as to intensify the development of their cognitive skills?
2. What are the factors that favour and what are the factors that prevent the realization of outdoor activities in optimal conditions?
3. What are the cognitive abilities of preschool children that can be formed mainly through their contact with the elements of the natural environment?

The experimental approach aimed to verify the following general hypothesis: Preschool teachers believe that outdoor activities contribute significantly to the development of preschoolers' cognitive skills

In accordance with the general hypothesis, the following secondary hypothesis was outlined: There is a significant correlation between the frequency of outdoor activities and the environment in which teachers work.

4. Research methodology

In order to find out the answer to the questions asked, the survey method based on the questionnaire was used, which was applied to a number of 100 preschool teachers working in the Caras-Severin county.

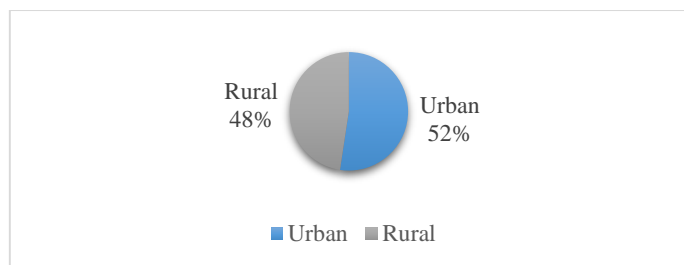
The questionnaire was made up of different types of questions: open questions (allowing free answers), closed questions (with predefined answer options) and scale questions (to a very small extent - to a very large

extent). For closed or scale questions, options or preset answers were proposed. Respondents selected the options that best fit their experience or opinion. The questionnaire applied also includes a text box for respondents to provide detailed answers or additional comments. In the questionnaire structure, questions were introduced that include the respondents' demographic information (age, level of education, gender, environment in which they work), because these characteristics are relevant for the interpretation of the results and the generation of conclusions.

The questionnaire was applied online, thus bringing multiple benefits, especially in terms of accessibility for participants. Consent was obtained from the participants, who were clearly informed about the purpose of the research and how their data would be used and the confidentiality of the collected data was also guaranteed.

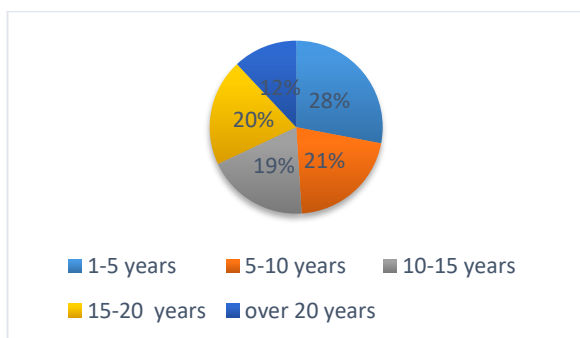
Regarding the composition of the sample, the number of respondents who work in urban and rural areas is approximately equal. This equivalence suggests an even distribution of participants from these two environments, which can provide a solid basis for comparisons and evaluations.

Figure 1. Working environment



A significant characteristic of the sample of teachers who responded to the questionnaire was highlighted: most of them are beginners in the field of education, which can lead to the possibility that these teachers, who are at the beginning of their journey in the field of education, show openness to the exploration and implementation of outdoor activities (after realizing the significant benefits they bring).

Figure 2. Years of work experience



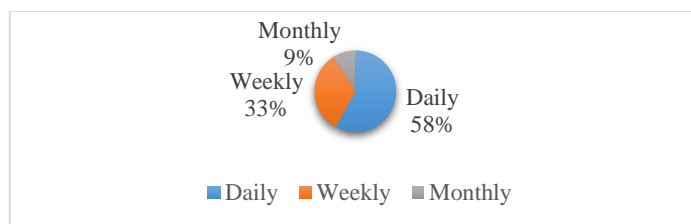
5. Results

5.1. The frequency of outdoor activities performed

Following the interpretation of the results obtained, one can state that the teachers' opinion regarding the development of cognitive skills through the realization of outdoor activities is generally positive.

Given the usefulness of outdoor activities, teachers believe that the impact of this type of activity on the development of cognitive skills is significant (95%). The contribution of outdoor activities to children's cognitive development is also supported by the frequency with which these types of activities are carried out by preschool teachers. More than half of the surveyed teachers (58%) carry out daily activities outside the classroom. At the same time, a significant number of respondents (33%) stated that they carry out weekly outdoor activities. These aspects are summarized below (Figure 3):

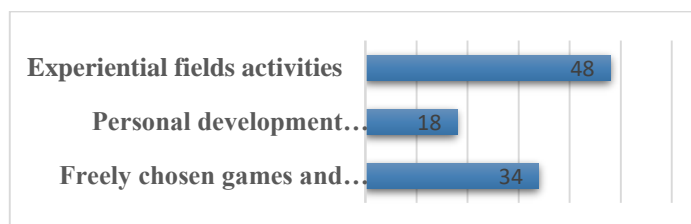
Figure 3. The frequency of outdoor activities performed



5.2. The ways in which outdoor activities are integrated into the preschoolers' daily schedule

Regarding the way of integrating outdoor activities into the daily schedule of preschoolers, almost half of the respondents (48%) stated that the activities in the experiential fields are the ones they carry out most often in the outdoor environment. These are followed by freely chosen games and activities (34%), and personal development activities are carried out in the outdoor environment by a smaller number of teachers (18%). The graphic representation below shows the categories of activities in which the outdoor elements can be introduced (Figure 4).

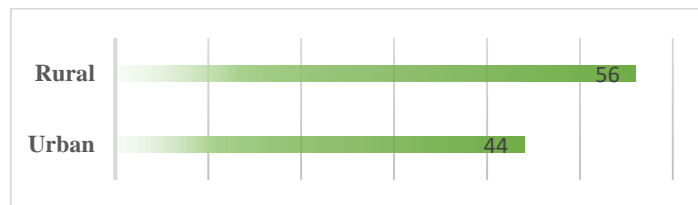
Figure 4. Outdoor activities in the preschoolers' daily schedule



Regarding the environment in which teachers work, the number of preschool teachers who do outdoor activities is higher in rural areas (56%), than

the number of teachers who teach in urban areas (44%). This result is explained by the specific characteristics of the environment in which they practice, regarding the facilities and organizational possibilities.

Figure 5. The teachers' working environment



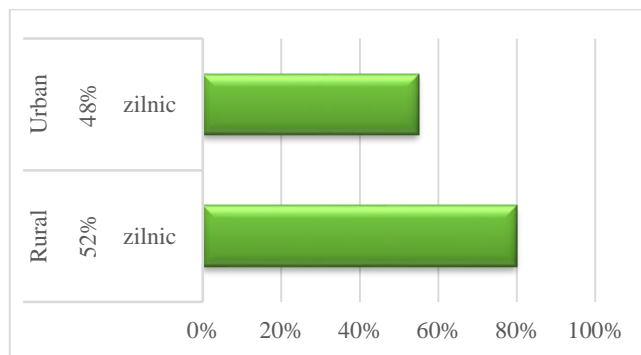
5.3. The factors that facilitate and those that prevent the good performance of outdoor activities

From the data obtained following the application of the questionnaire, the extent to which a number of factors positively influence the realization of activities in the outdoor environment was also identified. The majority of teachers (93%) are of the opinion that the achievement of outdoor activities in optimal conditions is due to a safe and stimulating play space. Also, a significant number of respondents (65%) state that the equipment and materials used lead to fun and stimulating outdoor activities. A significant number of preschool teachers (58%) state that the involvement of parents and that of the community contributes to a very large extent to the realization of quality outdoor activities. At the same time, a significant percentage (49%) of respondents believe that proper planning and organization largely lead to the success of outdoor activities.

The teachers participating in the study also encountered barriers in the optimal implementation of outdoor activities. A significant number of preschool teachers (59%) believe that outdoor activities cannot be carried out in optimal conditions due to the lack of adequate supervision (a single adult cannot meet the individual needs of preschoolers). Limited resources and facilities, as well as the lack of a specially arranged space, are factors that prevent 25% of the teachers participating in the study from carrying out outdoor activities in suitable conditions.

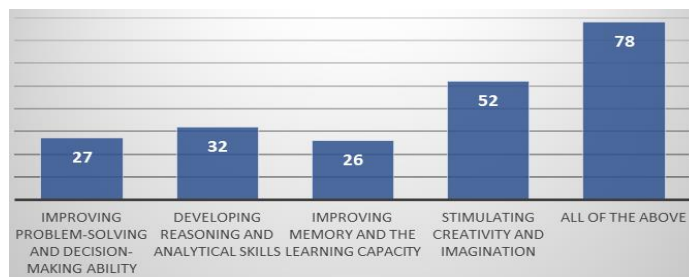
In rural areas, 80% of teachers carry out daily outdoor activities, while in urban areas, only 55% of teachers do it. The exact reasons for this difference require a more detailed investigation, but a number of factors can be mentioned, such as: access to natural resources, the environment and the educational philosophy specific to rural kindergartens (figure no. 6).

Figure 6. The frequency of outdoor activities depending on the environment of origin



However, through the mastery teachers prove, they carry out outdoor activities that bring a significant contribution to the overall development of the preschool child. Carrying out outdoor activities contributes to the achievement of behavioural indicators in all areas of development. Through the applied questionnaire, the influence that activities of this type exert on the children's cognitive development of children was also an objective and the aspects that are optimized by participating in such activities (Figure 7).

Figure 4. The impact of outdoor activities on cognitive development



The teachers who responded to the questionnaire believe that the most significant positive impact on the children's cognitive development who participated in outdoor activities is the stimulation of creativity and imagination. The majority of teachers chose the all of the above option (78%). This result underlines the absolute importance of outdoor activities in the development of cognitive skills in preschool children.

5.4. Example of an outdoor activity

The quantitative data obtained from the closed questions included in the questionnaire are qualitatively supported by the answers received to the open question, used to ask teachers to describe an activity they carried out in the outdoor environment. One of the responses received is as follows:

An example of an outdoor activity that can contribute to the development of cognitive skills in preschool children is "Treasure Hunt". This activity involves finding clues and solving problems to

discover a “treasure” hidden in a specific outdoor location. This activity stimulates several cognitive skills, such as:

- Logical thinking and problem solving: Children must interpret the clues and find solutions and answers that lead them to the “treasure”. It involves logical thinking, reasoning and the ability to solve problems.
- Spatial orientation: Children must follow the directions given by the teachers and the other participants in the activity and orient themselves in space to reach the “treasure”. It develops spatial orientation skills in children.
- Observation skills and concentration on the task: Children must pay attention to details and carefully notice every clue hidden in the outdoor space of the kindergarten. Children's participation in this activity develops their observation skills and ability to concentrate.
- Communication and cooperation: During the treasure hunt, preschoolers can work in teams or cooperate with other peers in the group to find the clues and solve the challenges encountered. This activity develops communication, collaboration and teamwork skills.

The activity described can be carried out in all three groups existing in preschool education, and the tasks can be adapted according to the bio-psychosocial particularities of the preschoolers in the group in which the activity is carried out.

6. Conclusions

The results obtained from the data interpretation highlight the fact that almost all teachers participating in the study (95%) support the indisputable value of outdoor activities on the development of the preschoolers' cognitive skills. A synthetic ranking of the benefits of outdoor activities is presented, structured according to the behaviours corresponding to the domain *Cognitive development and knowledge of the world*: these stimulate creativity and imagination (52% of respondents opted for this answer); they develop reasoning and analysis skills (32% of teachers mention progress in this regard); they freely improve the ability to solve problems and make decisions (27% of respondents highlighted this aspect); they improve memory and learning ability (26% of preschool teachers state this fact). Finally, it is considered important to underline that 78% of preschool teachers chose *All of the above* as an answer in the question

regarding the impact of outdoor activities on cognitive development.

Therefore, outdoor activities contribute with a variety of positive values in terms of the preschoolers' cognitive development. Reference to these benefits also exists in the Curriculum for Early Education, the exposure of children to environmental factors being described in this document as an essential condition for maintaining health.

Therefore, carrying out activities in the outdoor environment must be carried out in harmony with the annual study assignments, thematic projects and weekly assignments planned by the teachers, in order to facilitate the achievement of the proposed educational objectives. Outdoor activities properly integrated into the daily schedule of preschoolers add value to the educational process and contribute to the development of children in a holistic way.

In conclusion, these results underline the significant role of outdoor activities in preschool education and children's development. These should be considered not only as a recreational opportunity, but as an integral part of the educational program to support children's development in a comprehensive way. In the future research can explore specific ways to implement these activities and assess their long-term impact on children's development.

Authors note:

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