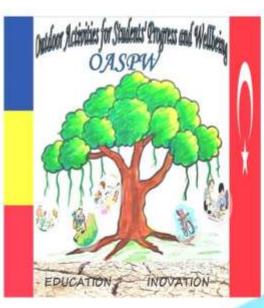
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A GOOD PRACTICE GUIDE ON OUTDOOR ACTIVITIES FOR STUDENTS' PROGRESS AND WELLBEING



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EDITURA CASEI CORPULUI DIDACTIC VASLUI 2023 This is a good practice guide with outdoor learning activities. This guide can be used by all primary, preschool and secondary school teachers.



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CHAPTER 1: THEORETICAL FRAMEWORK FOR OUTDOOR LEARNING ENVIRONMENT FOR STUDENTS' PROGRESS AND WELLBEING

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The educational environment - a context for the achievement of experiential learning

The learning environment is like an equation where resources are included and provided that can generate deep and authentic learning experiences. Learning, as a synergetic transaction between the individual and the physical environment, is the process of (re)constructing knowledge, assimilating new experiences and adapting previous knowledge to new contexts. Extending the learning environment beyond the classroom becomes imperative in the context of the correct application of pedagogical approaches. In the specialized literature, we find substantiated and argued theories and practices through which teachers for early education and primary education can create learning environments and contexts through which the child is holistically developed socially, affectively and cognitively. Reality shows us that most of the time spent at school, children spend their time largely in the classroom, in a closed space. Learning spaces should be designed so that there are connections between indoor and outdoor spaces where children are exposed to multiple types and levels of challenges and stimuli for testing skills. There are multiple references related to the physical environment in which learning takes place, the physical space being a variable generating effects, especially in terms of socio-human relations. All types of experiences lived by children at an early age, in a formal, non-formal and informal context, lay the foundations for their further development, forming the specific intellectual, social, physical and cultural capacities and acquisitions that will give them their own identity and dignity. Knowing this fact, we deduce that in order to develop harmoniously, any child needs an appropriate educational environment in which he can develop according to his age level and his particularities. The educational space is important for providing contexts to facilitate learning processes and must be created in a holistic manner, based on community and based on reciprocity in the relationships between people, places and things. Neil Postman (1969, p.18) synthesized the essence of the educational space, namely that the environment is the message, a concept introduced by Marshall McLuhan by which it was postulated that "the

environment itself transmits critical and dominant messages controlling the perceptions and attitudes of the participants". Designers in the book "The Third Teacher" converge on a similar position, arguing that the design of the classroom is a factor with a substantial impact on the teaching-learning-assessment process that takes place in that space. If some elements of classroom design can be delineated and taught to teachers, the aesthetic element is a less accessible one as an entry point, especially in terms of how the group room/classroom and the curriculum are interrelated especially in education early childhood and primary education. Beyond being viewed as mere disparate tools, aesthetics in combination with classroom design and curriculum generate implicit and explicit messages that inform and contribute to the teaching-learning-assessment process. In early education, it is recommended to reinvent materials, reorganize areas and reconsider every element of the classroom space to keep children's interest and curiosity at a high level.

The outdoor learning environment in school education

The outdoor environment provides settings and opportunities for interaction and free open play that involves stimulating imagination and curiosity, invites exploration and skill development. The literature shows that participatory approaches support the need to rebuild the learning spaces of schools to develop the child's agency, enhancing their well-being, development and learning.

The outdoor outdoor environment creates opportunities for children's participation and engagement that emphasize unstructured creative action, inviting children to explore and develop their skills by stimulating curiosity, interest and imagination. There are studies that have shown that involving children in the process of creating dynamic and aesthetically pleasing educational environments will develop their creativity and activate high-level cognitive experiences. Fuji Kindergarten, St Francis of Assisi Catholic Primary School, Kensington and Ballifield Community Primary School in the UK are excellent examples of learning to encourage socialisation, collaboration and learning.

In this context, in recent decades, in addition to outdoor education, an innovative approach to outdoor space has emerged: sensory gardens.

An education through experience capitalizes on and supports the active participation of the student in the learning process by developing all the senses and the three areas of learning (cognitive, affective and motor). "The senses, being explorers of the world, open the way to knowledge. Our apparatus for educating the senses offers the child a key to guide his explorations of the world..." Montessori, M. (1988).

Today, in early education, the strong interaction of the concept in question with the senses, emotions and cognitive structuring has been recognized (Samuelson, Carlsson, Olsson, Pramling and Walerstedt). Thanks to the horticultural therapy movement, it appears that the first sensory gardens appeared in Britain in the 1970s. Often these gardens, located in public parks as a way to show that the municipality is developing inclusion strategies, consist of small areas, often marked as "Garden for the blind", and consist of a combination of fragrant plants in planters, labeled in Braille language. (Hussein, 2012). A 2001 study of autistic children points out that this type of sensory stimulation helps calm and self-regulate their nervous system.

Most studies have highlighted the benefits of sensory gardens as an educational resource to demonstrate how children's attitudes, behaviours, motor development, social learning and well-being could be enriched.

In the study of Hussein (2012), it is highlighted that the existence of external spaces of sensory stimulation can encourage mental development, the quality of children's health, their emotional development and social integration. For example, Titman (1994) identified four elements that children sought in the outdoor space of the school building: a place for physical activities, a place for intellectually stimulating activities, a place for sensory stimulation to elicit a sense of belonging, and a place where they are allowed to be themselves. From the perspective of Stoneham et al. (1996), the concept and process of building a sensory garden integrates a holistic and participatory approach, involving children or other beneficiaries in their design and construction. Thus, the newly created educational space involves formal, non-formal and informal learning contexts for all beneficiaries. The study of Westley (2003) indicates that the existence of a sensory garden in the school space allows children to make free choices and explore all their sensations.

For these reasons, we advocate for the creation of sensory learning gardens in all school spaces, especially for preschool, preschool and primary education institutions - these gardens representing a valuable experiential resource for different categories of beneficiaries (children, teachers, children with special needs, parents).

The sensory learning garden can be defined as a system of multisensory stimulation through individual or group learning activities, carried out in a natural space, specially arranged with the general purpose of creating a dynamic learning atmosphere through the active and specific sensory stimulation of all senses to increase and maintain the well-being and well-being of children. Creating a sensory learning garden cannot be designed without considering the central element – the child. The specific elements of a sensory garden must trigger a wide range of sensory experiences, "by actively experiencing the garden with all the senses" (Stoneham et al., 1996).

Children's sensory abilities allow them to react to the quality of elements in their immediate environment. Children's sensory perceptions are said to strengthen and enrich their sensory skills (Ko and Chou, 2014). In terms of sensory perception, the quality and richness of stimuli presented to children play a critical role, with children building their knowledge based on sensory experiences or perceptions in relation to the concept of aesthetics (Ko and Chou, 2014). Senses involved in the exploration process are visual sense, tactile sense, auditory sense, gustatory sense, olfactory sense, baric sense (sense of weight), thermic sense (sense of temperature), stereo gnostic sense (sense of shape and size of an object by holding it with hands). According to Fox and Schirrmacher (2014), children are curious about everything they encounter. Children want to examine and discover everything in their environment using all their senses, realizing and appreciating the value of pleasant sensory experiences (Feeney, Christensen, & Moravcik, 1987). The child activates all his senses in front of an object or experiment in which he is not a passive recipient and enjoys this process of discovery (Fox & Schhimacher, 2014).

Considering all these contributions, in preschool and preschool period, it is important that the process that encourages children's interactive learning with various tools of world discovery is planned according to their developmental processes. In creating a stimulating environment for learning, teachers can start from the answers to the following questions: Is the environment attractive enough to create contentment among children? Does the created environment allow children to play and enjoy play? Is the environment suitable enough for activities to develop children's skills? Does the new environment create a calm and positive atmosphere? The researchers argue that the perspective of the teachers, which actually reflects the philosophy of the institution, is decisive in creating a pleasant environment for learning through play for children. Most of the time, it may not be possible to change the physical form of the classroom space, but it is possible to create an aesthetically pleasing educational environment through the chosen colors, the way of organization and choice of furniture, materials didactic and accessories.

Colbert (1997, pp. 28-29) recommends several steps for an effective design of the educational space:

• think about your philosophy about education and the objectives you propose;

• think about how your philosophy and goals relate to the available space and the activities that take place in that space;

• evaluates the children in the group and identifies the particular needs of each one; find out as much as you can about their familiar space and the type of interactions they are used to;

• if you work in an already built frame, observe the child and the things there; take notes on what seems to work properly and what doesn't; use a checklist to help you evaluate what you see;

• use as many resources as possible, read and familiarize yourself with recommendations regarding the use of the educational space, visit different centers;

• reorganize the space and change the behavior accordingly;

• observe the effects of the change made and decide where you have reached the objectives;

• make changes based on the observations made;

• start this cycle again taking into account the educational philosophy and objectives.

Taking into account the accumulated experience and as a result of the Innovative Learning Spaces project, we have conceived, designed and implemented, since 2018, a sensory learning garden in the space of the "Alexandru Ioan Cuza" University in Iasi, as a practice laboratory for future teachers for education preschool and primary school.

In the creation of such an outdoor space, like a sensory garden of learning, the correlation of the principles of the learning process, structured on areas of development specific to young ages through the integration of all the senses with an emphasis on experiential learning, must be taken into account. From this perspective, several questions arise: What is the identity of the new space created? How big and where should the learning space be located? What are the areas of interest? How will the space be organized? How accessible (frequently or occasionally) do you want the space to be? What kind of materials are suitable for covering these axes (learning process – development areas – integration of all senses)? What are the material selection criteria? What are the physical characteristics of the materials that will be placed? What design conditions must it meet? To what extent do these materials contribute to the improvement of the learning process? What roles and functions does the newly created space fulfill? And so on.

These inquiries regarding the physical space in the education process should be contextualized by reference to the theoretical and practical-educational approaches that underlie the philosophy of the education program. We recommend that the design of a sensory garden be focused on at least three axes: the chronological axis (in relation to the age of the beneficiaries), the axis of the contents addressed during the development of the specific age segments and the axis of the development of the senses.

Characteristics of the outdoor space and development of learning and social skills

The appropriate learning environment contributes to children's social, emotional, physical, intellectual and psychological development, as well as increasing children's desire to learn and developing their sense of belonging. It is recommended that all details of the indoor and outdoor learning environments be planned, the design relating to the characteristics of each unit, so that they can be transformed into an educational purpose.

An environment that provides emotional and affective safety, favoring freely chosen play, is effective for learning at a young age. The child's personality develops globally if he is exposed to the exercise of individual abilities through the independent and free use of the games and toys he wants. Through play, children will be able to learn, without effort, to communicate, explore, cooperate, socialize, identify solutions to problems, etc., which will lead to the formation of skills and attitudes necessary for social-individual adaptation and integration. For example, among the principles of the school created by Maria Montessori (1870-1952) we identify generous ideas regarding the educational environment that must be carefully organized, based on rules, provided with a multitude of educational resources centered on the child who experiences, discovers, discovers himself. As a counter to traditional education that tends to excessive informational and disciplinary control, the contributions of Ellen Key (1849-1926) are mainly related to the environment by creating a school of the future that must be structured in such a way as to allow free, autonomous development and independence of the child. The experiential learning approach dominated the 20th century with outstanding contributions to the child-centered education process (J. Dewey, K. Lewin, J. Piaget, C. Jung, P. Freire and C. Rogers). For contemporary education, Kolb & Fry (1975) developed a theoretical context that has remained a benchmark for current educational approaches. Numerous studies (Stoneham et al., 1996; Westley, 2003; Chatterjee, 2005; Dyment & Bell, 2006; Nikravesh & Tabaeian, 2016; Nordström, 2010) emphasize the benefits of outdoor learning, including: the development of behavior and social relationships, offering stimulating experiences.

In the Reggio Emilia approach, the view was developed that the "environment" would function as a third teacher if it were arranged in a way that fostered and brought about understanding (Strong-Wilson & Ellis, 2007). In this approach, much attention is paid to what is learned from the environment. In early education, Reggio Emilia classrooms have been a source of aesthetic inspiration where pedagogues see aesthetics as an activating agent in the teaching and learning process (Vecchi, 2010) both in Canada (Tarr, 2001; Fraser & Gestwicki, C. , 2002; Wien, 2004; Wien & Callaghan, 2007), as well as in the United States of America (Katz & Cesarone, 1994; Cadwell, 1997;; Topal & Gandini, 1999; Curtis & Carter, 2000; Guidici, Rinaldi & Krechevsky , 2001; Fu, Stremmell & Hill, 2002; Friedman, 2005; Lewin & Benham, 2006; Pelo, 2007, Edwards, Gandini, & Forman, 2016, etc.). It is useful to remember that Reggio Emilia inspired design principles that include: creating a focus on community to promote relationships, communication and curriculum development; bringing the outdoors into the classroom to create areas of natural beauty; inclusion of natural and authentic materials; indirect and natural lighting and the use of transparent materials; providing dedicated spaces to minimize transitions and enable sustained exploration by children; the need for pedagogical documentation on theories and ways of knowing the particularities of learning at young ages and collecting the messages sent by children regarding their learning experiences.

Jim Greenman (1988) and F. Wardle (2016, pp. 1-2) point out that an educational environment suitable for quality early education should be:

• rich in experiences, because children explore, experiment and learn basic knowledge through direct experiences;

• rich in education, as children need the educator to illustrate several roles - confidant, colleague, model;

• full of people from various areas and fields; children need to make contact with different people and not only with those who fulfill some well-known status-roles in society, i.e. they need to be exposed to interaction with other professional categories in the community: farmer, pastry chef, cook, gardener, painter , tailor, etc.;

• significant for children, because they need to feel important and to understand that the products they make are important for others;

• a place children can call their own.

We complete this list with three other characteristics of the educational environment specific to early childhood education:

• abundant in play activities and educational materials (toys and games), because at this age only through play is an integration and transfer of learning experiences that lead to the development of specific social, intellectual, cultural and physical capacities and acquisitions ;

• comfortable, by setting up quiet areas with furniture, sofas, pillows to create a specific space for studying and meeting other children;

• attractive, adequate and sufficiently stimulating in terms of material endowment for creating new learning situations.

Thus, we can define the educational space as the whole constituted inside and outside an institution, arranged according to the design principles and aesthetics of the group/class space as a constitutive part of the teaching - learning - evaluation experience which is determined and defined by the occupants at a time given and specially equipped with the necessary means to carry out a certain type of activities, in order to form action skills.

Outdoor space and development of learning and social skills

General aims of outdoor education are to enhance personal and social development;to develop a deeper relationship with nature; to raise attainment through better teaching and learning experiences. Regarding the specific aims of outdoor education, we can mention: teaching outdoor survival skills; improving problem solving skills; enhancing teamwork; developing leadership skills; understanding natural environments and providing an active, first-hand learning experience.

Which are the benefits of outdoor education for children?

Most studies have shown the impact of the outdoor activities on the process of developing scientific skills, of which we mention: higher level of knowledge and better ability to understand; positive attitudes towards colleagues, towards the community, family; values and feelings, for example towards the environment; better orientation and communication skills; more adecquate behaviors specific to group interaction or personal strategies in dealing with difficult or threatening situation; a better personal development, such as self-confidence and personal efficiency.

Activities outside the classroom, in the school yard or in the community are able not only to generate positive cognitive and affective learning, but also to improve it significantly compared to what can be achieved in a classroom environment (Nundy, 1999).

Hattie, J., Marsh, H.W., Neill, J.T. and Richards, G.E. (1997) conducted a synthesis of 96 researches that analyzed the effects of outdoor learning. If outdoor programs have goals related to specific academic competencies, then the effects of these programs on academic performance are very strong. Contrary to the findings of most research in the field of education, these immediate or short-term gains have been shown to be sustainable, according to later assessments, long after research has been completed.

The provocative and unpredictable nature of the natural environment requires participants to change their behavior, thus increasing their self-control and independence. Outdoor programs give young people the opportunity to act successfully in a variety of difficult situations that increase self-confidence and self-efficacy. The strongest effects of self-learning outdoor learning programs were on independence, confidence, personal efficiency, and self-understanding.

Developing teaching activities în natural environment support physical and mental health, emotional well-being, learning (Kuo, Barnes, & Jordan, 2019; Mårtensson et al., 2009) and provides better ability to cope with stress (Adams & Savahl, 2017; Gill, 2014).

Children are more supportive, calmer and physically more active when they are outdoors (Cleland et al., 2008; Dankiw et al., 2020; Gill, 2014) manipulating open materials and objects (Dankiw, Tsiros, Baldock, & Kumar, 2020; Klofutar, Jerman, & Torkar, 2020) and they develop more social and cooperative relationships (Dankiw et al., 2020; Scott, Boyd, & Colquhoun, 2013; Scott, Kilmer, Wang, Cook, & Haber, 2018).

In the natural environment, children feel more autonomy and freedom (Adams & Savahl, 2017; Dankiw et al., 2020; Kuo et al., 2019). Outdoor play and learning have a positive impact on children's self-esteem, self-confidence, and self-perception, as well as on their decision-making and risk-taking (Gill, 2014; O'Brien & Murray, 2007; Sandseter, 2009). It helps children acquire perseverance, self-efficacy, resilience, teamwork, leadership, and communication skills that are important later in adult life (Kuo et al., 2019).

Hattie et al (1997) state very clearly that in their meta-analysis, in all interpersonal dimensions, there are marked increases as a result of outdoor learning programs. It seems that adventure programs certainly affect the social skills of the participants in desirable ways. This was specifically true and observable for measures of social competence, cooperation and interpersonal communication. The same was true for most leadership skills, such as decision-making, teamwork, time management, and organizational skills.

Experiential learning creates opportunities for creativity and engages pupils in concrete hands-on tasks which require several solutions or may lead to unique solutions.

Research conducted by the California Roundtable on Education and the Environment (SEER, 2000) compared high school students in 11 California schools who participated in outdoor learning activities with students in traditional schools. The evaluations on which the comparisons were made were conducted in literature, science and mathematics. Higher scores were obtained in 72% of academic assessments (higher attendance and higher averages) compared to students in traditional schools.

The children get a firsthand experience of practicing what has been taught in a safe environment. This plays a crucial role in retaining new ideas. Mistakes become part of the learning process. Experiential learning means making mistakes through the process of trial by error until the child finds the solution.

Hands-on activities require practice, problem-solving and decision-making; children get engaged emotionally and physically in the process of learning by doing or through experience; as a result, what the child has learned is easily retained and for a long time. Experiential learning accelerates learning and it becomes more personal.

Outdoor activities encourages children to cooperate and learn from each other, which also increases children's engagement and ability to actively engage in teamwork and selfdirected tasks as well as their ability to learn without direct instruction. Through outdoor activity, it raises children's interest in learning by encouraging them to learn at their own pace, have fun, try new things (of their own free will) and learn in a safe controlled environment.

"The process of developing teamwork through cooperation games and group projects has instilled in children a sense of ownership and meaningful internalization of their knowledge of the park." (Milton, B., Cleveland, E. and Bennett-Gates, D. (1995).

Outdoor activities increases self-confidence and self-esteem and engages students in critical thinking, problem solving & decision making. Given a topic, children appreciate the opportunity to direct their own learning, exploring issues that are of interest to them. They also enjoy choosing what they will create and take pride in what they have created, which develops a more positive attitude towards learning.

Which are the benefits of outdoor education for teachers?

The most known benefits *of outdoor activities for teachers* are: a better health, an increased motivation, an enhanced communication and socio-emotional skills, an improved memory and imagination, a better overall behavior and reduced stress levels, co-curricular activities and field trips/edu-tours and excursions.

Designing outdoor activities

The current school curriculum was developed from the perspective of moving from an objective-centered to a competency-centered model of curriculum design. Key competences are defined as sets of knowledge, skills and attitudes that must be acquired, respectively formed by students within this process and that each student needs for personal fulfillment and development, for active citizenship, for social inclusion and for employment on the labor

market. The structuring of these key competences targets both some scientific fields, as well as interdisciplinary and trans-disciplinary aspects, which can be achieved through the efforts of several curricular areas.

The approach to outdoor school subjects is primarily based on a well-established planning process that supports the teacher's understanding of the essential steps for carrying out an outdoor activity. An important aspect in the planning process is the involvement of the students as well as the things that are of interest to them (it often happens that the involvement of the students in an outdoor activity is impossible for various reasons - either because the students do not have the necessary knowledge to get involved in the activity, either the activity does not fit the students' learning needs - in this situation what the teacher has planned will create chaos and disorganization, or even be a failure, which means wasting the student's/teacher's time, wasting the materials, etc.).

Outdoor activities are different from other teaching methods because they give the teacher the opportunity to identify different behavior problems of the students. Observing how students act towards the proposed activity can be relevant for identifying aggressive behaviors or integration problems. It is recommended that the teacher involves each student to participate actively, to assume responsibilities and respond to the roles and tasks received. If the teacher notices that the students are passive, then he should give them extra time, encourage them to get involved. Outdoor activities put the student in different poses, in this way the teacher has the opportunity to identify, observe a problem child, an ignored child or one who does not integrate.

To be able to carry out outdoor activities in relation to the school curriculum, it is necessary to follow several stages, starting from the planning of the general theme, the design of the activity and up to its implementation.

Planning an outdoor teaching activity includes the following stages:

1. Choosing the activity to be carried out according to the age of the students. This must be closely related to the school curriculum and discipline. For suggestions and ideas, you can ask the opinion of the students, you will be amazed by the creativity and imagination of your students and you will discover in them a hopeful help

2. Drawing up a lesson plan that includes: purpose, objectives, activities and desired results.

3. Consideration of technical details:

- weather conditions: the weather must not always be an impediment (for teaching lessons about climatic phenomena, rainy weather, snow is an advantage - but you must take into account that the students are well dressed according to the climatic conditions);

- the location of the activity - it must be taken into account that the place chosen for the activity corresponds to the topic to be addressed, the time allocated to travel to that place, the costs necessary for travel, if they exist, the agreement of the school unit if necessary;

- the number of students who will participate in the activity, taking into account the number of teachers needed to supervise them;

- the time allocated to the activity must be reasonable and not affect other class hours;

- material and financial resources - they must be accessible, for example these activities can focus primarily on resources from the natural environment. If financial resources are needed, the help of the school management, sponsors or the help of families can be called upon, but a potential refusal from them must also be taken into account, therefore a backup plan is always necessary;

- a set of rules to be followed during the activity that must be communicated to students, to avoid possible conflicts between students or any kind of unforeseen problems.

- the risks of running an outdoor activity must always be taken into account and solutions found that would prevent them, for their good performance.

4. Activity evaluation:

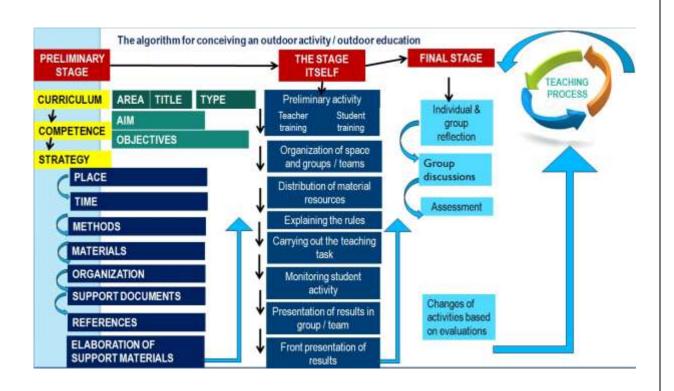
- qualitative evaluation (such as: the degree of involvement of the students in the activity or the skills acquired by them);

- quantitative assessment (such as: the material resources used, the number of students and teachers involved);

- feedback is an important aspect in any ongoing activity, as it gives us an overview of the participants' opinions, complaints, proposals; it is desirable that at every stage of planning an outdoor activity, we get the feedback of everyone involved - for an outdoor activity to be successful, it must take into account constant cooperation, communication, offering the possibility of expression of those involved.

Outdoor activities offer the teacher the opportunity to observe and get to know the student much better, because they put the student in various poses.

further, for a better understanding and application of the concepts presented above, we structured an algorithm for designing an outdoor activity.



What types of interest areas may be included in an outdoor learning activity?

Some examples of outdoor activities than can be done around four major categoria:

1. nature science: geography, geology, river study, habitat study, astronomy, environmental science etc.;

2. nature connection: forest schools, sensory journey, landscape history, conservation, rockpooling, wildflower, birdsong walks etc.;

3. skills and challenges: teambuilding tasks, expeditions, walking, hiking, raft building, coasteering, caving, ropes courses etc.;

4. adventure sports: climbing, canoeing, biking, sailing, orienteering, archery etc.

Karen Barfood & Eva Skytle (2013) identified nine criteria for a successful outdoor teaching activity:

 \checkmark the learning objective must be clear;

 \checkmark extracurricular activities must be correlated with those in the classroom;

students must cooperate;

 \checkmark the use of concrete and relevant learning situations with visible purposes;

 \checkmark activities must be linked to practical actions;

 \checkmark the student's activity and understanding must be based on the use of the environment;

 \checkmark activities must include sensory experiences;

 \checkmark the activity must be completed accordingly with a stage of evaluation, reflection and inclusion in perspective;

 \checkmark the teacher must be able to stand aside.

Conditions for outdoor teaching activities

Outdoor education can represent a viable solution through the integrated approach of the sciences, close to the way the child understands the environment. A child does not perceive the world through biological, physical or chemical phenomena and processes, but as the totality and complexity of the environment with the problems of which his understanding is confronted.

The study of the Natural Sciences discipline must be carried out in close connection with the psycho-physical particularities of the young schoolchild, ensuring the transition from concrete, direct knowledge to abstract knowledge, mediated by word and image in accordance with the thought processes, because the reason to be of the curriculum is not the content, but the student, with everything he must represent as a product of an educational approach (Niculescu, R. M., 2003).

Natural sciences as an educational discipline must aim at observing and perceiving the world in its entirety with its components, processes and characteristic phenomena, and learning must be achieved through understanding and application, not through excessive theorizing.

The space provided by the garden, greenhouses, school yard, parks are learning environments where uninterrupted initiated play and cooperative and investigative activity are essential in this approach to education. The physical and mental health benefits gained from these experiences outside the classroom were emphasized, leading to a general awareness of the outdoor teaching environment complementary to the indoor educational environment. Professional educators must plan their teaching activities in an educational space, both indoors and outdoors, to provide a positive context for learning and teaching. Children must have opportunities to play and learn indoors and outdoors. Providing wellplanned experiences based on outdoor inquiry learning is a way of developing new ideas resulting from discussions between participants, a combination of individual and collective activity, the aim being to obtain as many questions as possible and thus as much as possible more connections between concepts. It also offers the student the opportunity to be actively involved in the learning process, making permanent integrations and restructurings in his own rational system, which gives knowledge an accentuated operational character. The investigation stimulates the students' initiative for decision-making, offering a much deeper level of understanding of the events and phenomena studied, at the same time motivating the students in carrying out the proposed activities.

The role of the teacher in carrying out outdoor activities

Safety is paramount in outdoor education. In any activity, risk cannot be completely avoided, but the teacher has an obligation to ensure that major risks will be reduced to minimal levels. The teacher is responsible for the safety of the students and the students themselves.

The teacher must teach students to take calculated risks, to develop their own risk attitudes, to contribute to the issuing of rules for outdoor activities by identifying and analyzing very carefully all the risks and dangers that may arise, making an effort to eliminate them, avoid them or to reduce the risks to minimum levels, is the most effective way to manage the risks. All personnel involved in outdoor education should be fully aware of all mandatory principles and procedures. Teachers must ensure that precautions are taken regarding the safety of the participants, and that supervision will be adequate in relation to their numbers, their maturity, their behavior and the planned activities. In order to obtain the permission to carry out the activities, information will be obtained regarding a series of security issues, including the proposed itinerary, group composition, emergency plans.

Planning activities to minimize risks to student health and safety is an integral principle for learning outside the classroom. Being aware of the potential risks helps us think deeply about what we intend to do, why we are doing it, and whether we have the necessary skills to conduct the activity safely.

The teacher responsible for a certain outdoor didactic activity must provide certain instructions that must be respected by the students. The students are specified exactly what they have to do in order to reduce the risks for certain activities. Always, the teacher must ensure that any indication is accompanied by a reason so that the students can learn from the experience.

Knowing the students is an essential element, the better the teacher knows his students, the more he is aware of their abilities, their needs, their personality, their reaction to stress, etc.. If the teacher is aware of all these things, then there is very little risk of putting students in situations they would not be able to cope with or where the risk would be too great.

For a teacher, it is not enough that he alone has all the necessary information to carry out the activity. He must reveal to the students as much information as possible regarding the activity to be carried out and consult with them regarding certain details of the activity.

What can teachers should do to build a safe environments for their students during the outdoor activities?

- 1. All toys, equipment, and materials are in good condition.
- 2. There is adequate fall protection surface under the equipment.
- 3. Playground equipment is proper size for the ages of children using it.
- 4. Broken equipment is removed or otherwise off-limits.
- 5. There are no broken toys, balls, equipment, etc.
- 6. Glass doors are marked to prevent collisions.
- 7. Fence is in good repair.

8. There is no trash, litter, debris, animal waste, downed power lines, etc. on the playground.

9. Equipment is free of obvious dangers, such as nuts and bolts that stick out.

- 10. Equipment is free of rust or cracks.
- 11. Equipment is free of sharp edges.
- 13. Equipment is free of noticible gaps.
- 14. Playground is free of obvious tripping hazards such as large roots.
- 15. Playground is free of ditches, holes, or standing water.
- 16. Playground is free of uneven concrete or asphalt.

Methods and techniques used in outdoor teaching activities

The main methods that can be used would be: cooperative learning, discovery learning activities, individual and group reflections, and discussions.

Cooperative learning

Cooperative learning is a structured and systematized instructional strategy of small groups of students, so that they can work together so that each member of the group improves his own performance and contributes to the increase of the performance of the other members of the group. (Johnson R., Johnson D., Holubec E., 1994) Cooperative learning meets different objectives. It can serve to deepen already known concepts, introduce new concepts,

improve skills, awaken interests etc. Cooperative learning implies the hypothesis that the way the activities are planned determines the quality of the interaction between the students, the results of the activities being consequences of the interaction between the students. Thus, one of the main elements that must be created in the classroom is positive interdependence or cooperation.

Learning by discovery

One of the modern methods that ensures, to a much greater extent than traditional methods, independent activity and the appropriate motivation for the active and conscious acquisition of knowledge is the method of learning through discovery and within it the problematization with the help of which the students arrive at the discovery of unknown truths , but known in science and by the teacher. Learning by discovery is achieved with the contribution of other educational methods, being a final method. Unlike the expository methods, the students do not assimilate the acquired knowledge, but on the contrary, they conquer the knowledge. Under the guidance of the teacher, the students carry out observation activities, look for alternative solutions to solve some problems. Learning through discovery can be organized in several forms, determined by the specifics of the learning objective and the age characteristics of the students. It uses induction, deduction and analogy.

Learning through inductive discovery includes the analysis, classification and ordering of some data, but also already known notions and their transition to generalities in order to formulate hypotheses, rules, definitions, new information, about objects, phenomena, processes. Learning by discovery can be deductive. Students ask themselves questions that can be answered by formulating reasoning, starting from general truths, acquired previously, by information from books, by carrying out activities, thus arriving at the discovery of new knowledge or the correction of wrong knowledge.

Investigation

The investigation is theoretically framed as an alternative assessment method similar to the project, but differing from it in that it does not have such a large scale and all three stages are carried out in the classroom and it is based on the group activity directed by the teacher, but which leads to learning through discovery where personal input is received, achieving a balance between the teacher and the investigative activity of the student. This method helps students learn to ask questions, seek explanations, identify causal relationships, and develop cognitive mechanisms that lead to the formation of critical thinking, the ability to solve new problems, and creativity. Creativity, in current times, is even more of a social and economic necessity. The concept of creativity applies to everyone, from the child at play to the inventor or artist. Defined as "a complex of mental attributes and skills that, under favorable conditions, generate new and valuable products for society" (Al. Rosca), creativity can be developed from an early age. In school, activities that are limited to describing or analyzing something do not stimulate creativity. Student creativity appears as an indicator of a correct educational strategy, this fact being the most important methodological consequence of student creativity development activities. Students who attend lessons in which creativity activities are applied are more energetic, more interested in the subjects learned, solve problems implicatively. For such an innovative perspective to be possible, what the psychologist J.P. Guilford defined as divergent thinking is necessary, which is not limited to the stereotype or what is known, compared to divergent thinking, whose field of research and analysis is limited by conformance and repeatability. Outdoor activity offers this context in which investigation can be capitalized by the emergence of new ideas and encourages this way of looking at things by stimulating it through a permanent interrogation, which puts the subject in a position to reanalyze and restructure continuously.

Individual and group reflections

The reflection activity, most often, is carried out at the end of the lesson and aims at a retrospective of the activities covered along the way, which are assessed in terms of achievement or non-achievement. Reflection involves expressing in one's own words what the student understands or does not understand, what he has learned or has not yet learned, to explain the factors of success and the causes of failure, to design solutions to prevent and combat the latter, etc. Thus, the reflection can be, and must be carried out at any stage of the lesson, so that it aims not only to fix the results of the activity, but also to compare the procedures and methods of personal action with those of colleagues.

Students' ability to reflect is formed gradually, over time, by applying a special methodology, embodied in the appropriate choice of methods, forms of organization, etc. By "reflecting" in the lessons, students develop absolutely necessary qualities.

Systematic and independent observation

Systematic and independent observation represents a didactic method in which a direct research action of reality predominates, by directing learning in didactic sequences designed at the level of interaction between intuitive knowledge and logical knowledge, between 20 inductive and deductive reasoning, which ensures the direct investigation of objects, facts, events, relationships, correlations.

The structure of the method capitalizes on the following stages necessary in the design and realization of the training sequences: reporting the essential elements of the studied phenomenon; defining general features at the level of observable categories; the synthetic expression, at the conceptual level, of the social function of the studied phenomenon.

Conversation

The conversation is carried out through the dialogue between the teaching staff and the students. However, it depends on the skill of the teaching staff that this dialogue trains the whole class. The questions that trigger the dialogue are asked in front of the whole class and only after the necessary time for thinking has passed is the student named to give the answer. The conduct of the dialogue by the teaching staff is done in such a way that it is neither too rigid nor leads to conversations that deviate from the teaching tasks. In other words, the didactic dialogue is conducted permanently but elastically towards the achievement of the goal. This does not mean that the questions are asked only by the teaching staff.

It is very important in the didactic conversation to give the opportunity to the student and, even more, to stimulate the student to ask questions. This requirement falls within the educational tasks in which the aim is to teach the student not only to give answers but also to ask questions. Only through a two-way dialogue (the teaching staff and students) can the formative value of the conversation method be reached, only through such leadership of the dialogue can the transmission, understanding, fixation and repetition of knowledge be overcome, simultaneously achieving the training of students' thinking, the activation their memory and stimulating their cognitive and practical interests. Likewise, superior utilization of the conversation method requires the full mastery of the didactic conversation technique by each teacher, the possibility to organize and conduct a heuristic, stimulating conversation in which the questions are causal, problematic and less reproducible.

Demonstration

The demonstrative materials are indispensable for teaching precisely because they have a special quality to replace the original and to represent it, when it is not accessible to a direct perception or when it needs to be better penetrated by the student's observation.

To demonstrate (term derived from Lat. Demontro = to show exactly, to describe, to prove) means to present (show) students the real objects and phenomena or their substitutes

(substitutes, images), in order to ease the effort of exploring reality, of ensuring a sufficiently suggestive perceptive (concrete-sensory) support to make the teaching and learning of some knowledge accessible, of confirming the consistency of some truths (theses, theories) or of facilitating the correct execution of some actions and the formation of appropriate skills or behaviors (practical, professional, for example). (Cerghit, 2006, p. 131)

Demonstration can also be defined as "teaching-learning method, in which the message to be transmitted to the student is contained in a concrete object, a concrete action or their substitutes." (Bălan, 1998, p.151)

However, there are differences between the didactic demonstration and the deductive, theoretical demonstration. The latter presents an exposition made up of statements, through which the teacher presents notions, principles, fundamental facts and generalizations, or abstract theories with the help of definitions, propositions followed by demonstration, confirmation by examples of those stated. In such a situation, the theories, the concepts instead of being elaborated by the students by resorting to mental operations of abstraction and generalization, they are presented by the teacher. (Cerghit, 2006, p. 132)

Demonstration supports the process of knowledge both on the deductive path, through the materialization and concretization of some ideas in lower-order ideational constructions, and on the inductive path, through conceptualization and "detachment" from reality, through decanting idealized operating frameworks, which guarantee penetration and explanation more nuanced and deeper of reality.

Outdoor learning doesn't just mean a new place for learning, it implies a new perspective on learning, a change in approach to carrying out activities, a high permissiveness for experiential acquisition.

CHAPTER 2: ABOUT SECONDARY NO.1 HURDUGI SCHOOL FROM HURDUGI, VASLUI, ROMANIA

VIOLETA FANDOLEA

SECONDARY NO. 1 HURDUGI, ROMANIA

Short history

Dimitrie Cantemir commune, Vaslui county, is located in the northeastern part of the country, within the Moldavian Plateau, 60 km from Vaslui municipality. The administrative-territorial unit includes five component villages (Hurdugi-community center, Guşiţei, Grumezoaia, Plotoneşti and Urlaţi), settlements that were founded in the Middle Ages, documented in the century XIV-XV, from the time of the great ruler Stefan the Great.

Currently, the locality has a population of approximately 2400 inhabitants. The daily migration is towards the cities of Huşi and Vaslui, but the main occupation of the inhabitants is agriculture. The town has no industrial activities, the economic potential being based on a few agricultural and commercial companies and many people have gone to work abroad. Following a survey, we found that almost a quarter of the number of parents work abroad (one or both parents), which is a rather worrying fact. The unit has 217 students and 40 preschoolers registered in the school documents for this school year, 2022-2023, which, according to the censuses, is continuously decreasing. **Secondary School No. 1, Hurdugi** village in Dimitrie Cantemir commune, has been operating in a new premises since 1975, 5 classrooms were put into use, with a Teachers' Room and an office for the Head teacher and secretary. At the moment the school operates in two buildings A and B, with sanitary facilities inside them and with a power plant that uses electricity.

Presenting the current status of resources

Institutional and administrative framework (management)

Secondary School No. 1, Hurdugi Vaslui is an accredited pre-university education unit and is part of the national school network.

The management of Secondary School No. 1, Hurdugi Vaslui is ensured in accordance with the legal provisions

Secondary School No. 1, Hurdugi Vaslui is managed by the Board of Directors, director.

In order to fulfill their duties, the management of Secondary School No. 1, Hurdugi Vaslui, respectively the Board of Administration, consults, as appropriate, with all interested bodies: the Teachers' Council, the trade unions, the Parents' Representative Council, the Students' Advisory Council as well as with local public administration authorities.

Secondary School No. 1, Hurdugi Vaslui operates on the basis of the Internal Regulations

updated annually. The content of the **Internal Regulations** and the **Organization Chart** are brought to the attention of all employees, students and parents, in order to ensure that they know their rights and obligations in relation to **Secondary School No. 1, Hurdugi Vaslui**.

Curriculum and educational offer

The educational partner of the teaching staff, the group of students, without whom the instructional-educational process would not take place, is made up of 217 students, of which: • 40 in the pre-school cycle, organized in 3 groups • 108 in the cycle primary, organized in 7 classes. • 109 at the secondary school cycle, organized in 6 classes. The school provides training and education for students from the locality and four other component villages. Most of the students come from modest social categories, economically and socially disadvantaged families and in a small number from disorganized families.

The school operates in two buildings, located in the same courtyard:

• New school - with 4 classrooms, director's office, product storage stores

• The old school – 4 classrooms, computer office, chancellery, director's office, secretarial and accounting office, a room for the school archive.

• The kindergarten operates in a building located in another location with a functional classroom.

Material and financial resources

The school building was built in 1975, it consists of a ground floor and a first floor, equipped with 4 specialized classrooms and an IT laboratory, a laboratory equipped with computers that are connected to the Internet. The school has a library with more than 1200 volumes, specialized and fiction books, medical office and sanitary groups for students and teaching staff, permanent exhibitions. In the school there are facilities: office for directors, accounting, secretariat and a chancellery.

School view

Organizing the activity so that the students acquire a good general preparation, thorough knowledge of the exam subjects, skills necessary for insertion in high school and European education, intellectual work skills to be able to learn throughout life, these in a professional educational environment, to high educational and moral standards. The space necessary for the fascinating adventure of becoming can only be a prosperous school, open to the experience of knowledge, free, free from ideological constraints, focused on the immediate goal of the quality of information and learning, permanently connected to reality and attentive to the perspectives it offers to its students .

Secondary School No. 1 Hurdugi is a school in the service of the community, having the ability to function as an efficient and fair structure for all categories of children and to ensure the progress of all its students, so that "Tomorrow be better than today".

The School mission

Our mission is the development of each student to his maximum potential by stimulating the desire for knowledge, by training skills and habits of efficient use of information, developing values and attitudes that constitute the essence of citizenship, in order to be able to choose the most suitable future and to adapt to a dynamic society, a society of knowledge.

Being a good educator presupposes being, first of all, a teacher oriented towards the future, with responsibility towards the mission of education and learning.

The mission of our school unit is known and assumed by all interest groups represented in the school: parents, students, teachers, local authorities, economic agents, other community representatives.

The mission of **Hurdugi Secondary School No. 1** is to be open to all children, regardless of ethnicity, religion and gender, in order to feel competent in holding and using information, open to change and to learning and respecting the values of a democratic society. We offer equal chances for harmonious development, professional training, partnership for aesthetic education and general culture of children.

The school, as a community, seeks to satisfy the need of each student to feel competent, connected to others and autonomous, to feel competent in owning and using information, open to change and to learning and respecting the values of a democratic society.

CHAPTER 2: ABOUT SEHIT AHMET AKYOL ILKOKULU SCHOOL FROM ADAPAZARI, SAKARYA, TURKEY

BERNA GURBUZ

SEHIT AHMET AKYOL ILKOKULU SCHOOL

VISION

Our students graduate as individuals who can appreciate our cultural heritage, interpret the life they have lived and offer solutions to problems. They acquire knowledge, skills and attitudes that can be applied in everyday life.

In order to achieve our ideals, it is our intention that our school recognizes learning as a basic need. In our school, every parent should have the assurance that their student will have every opportunity for learning. Both teachers and students believe in the importance of helping each other learn and grow. People working in our school should have the confidence to do what they need to do. They should not be afraid of the answer they will get if they get it right. Everyone in our school should strive to be better every day.

MISSION

In line with the objectives of the Turkish National Education System, to raise productive individuals who have acquired the knowledge and skills required by the 21st century and who are compatible with society.

Our belief is that the student's learning is the first priority. Students are the focus of our work and the basis of our goals. We encourage each other to develop in ways that keep pace with the ever-changing expectations of students, parents and society.

We all take responsibility for each other and work effectively to improve the success of our students. We trust each other and ourselves. We respect, protect and care for our students as individuals. We are different. We are talented, energetic, enthusiastic and productive.

PRINCIPLES

- 1- Our primary aim is for students to learn how to learn.
- 2- Our students are at the center of all we do.
- 3- We encourage each other to develop in ways that keep pace with the ever-changing expectations of students, parents and society.
- 4- We trust each other and ourselves.
- 5- We value those who contribute to improving the quality of teaching in the school.
- 6- We believe that there are alternative ways of solving problems. We use our time and energy to achieve and fulfil progressive goals.
- 7- We value self-improvement, use innovative ideas and support development.
- 8- We use a variety of teaching methods and materials to achieve learning objectives.
- 9- We prepare special support programs for students with learning difficulties.
- 10-We provide a variety of learning opportunities for the whole class, work groups and individual students.
- 11- We believe in the ability of all students to learn.
- 12-We take into account different learning styles when preparing teaching materials.
- 13-We take individual differences of students into account when organizing learning experiences.
- 14-Without hurting the pride of the students, we guide students who need to be closely monitored and supervised.
- 15-We evaluate each student according to his/her own abilities.
- 16-We respect and value even the underachieving student.
- 17-We accept our students as individuals and care for them.
- 18-We treat our students as we would an adult human being.
- 19-We make our students feel that we are on their side.

20- We encourage our students to demonstrate their personal skills.

21- We take pride in our school and our students.

22- We respect, protect and care for our students as individuals.

23- When assigning homework, we take into account the individual abilities of our students and give the same homework to the whole class. When assessing, we mainly take into account each student's progress within their own standard. We believe that we will be more successful if we work together with our students and parents.

VALUES

1- Our students are at the heart of everything we do. Our students are respected as individuals. Developing the bond of love and respect between students and teachers' day by day is the common goal of all.

2- We consider it a fundamental principle to educate our students as individuals who aspire to Atatürk's ideal of a Turkey that aims to rise above the level of contemporary civilization; who believe in the indivisible integrity of our country and the fundamental values of the Republic of Turkey, which is a democratic, secular, social state of law.

3- We believe in the need for an environment and understanding in which the feeling of "WE", not "I", prevails.

4- Students learning to learn is the first priority.

5- Speaking and writing Turkish well is our common value.

6- By ensuring cooperation between the school and parents, we work to ensure that students can apply the behaviors they acquire at school.

7- We believe that success will increase with teamwork, encouragement and reward.

8- We pay attention to environmental awareness.

9- To make the necessary sacrifices for the betterment of our students and to work in this direction; constitutes the personality of our school.

10- We will keep the morale of the staff high in order to achieve total quality in our school.

11- We will work to raise golden generations who will take steps towards the future by adopting the belief that "Science is the truest guide to life" as a principle.

12- We believe that all students should be given adequate learning opportunities (within the school's facilities) and that each of them should be cared for in accordance with their individual talents and identities.

We take ownership of responsibilities, achievements, risks and rewards.

HISTORY OF THE SCHOOL:

Adapazari Sehit Ahmet Akyol Elementary School:

Mithatpasa Primary School started its activities in the school year 1953-1954 in 5 classrooms of the State Railway Apprenticeship School.

In 1965, a building with 12 classrooms was built by the Ministry of National Education on the land ceded by the Wagon Factory.

The name of the school was changed to Mithatpasa Sehit Ahmet Akyol Primary School in 1995. It became a elementary school in the 1997-1998 school year.

In the earthquake of 17 August 1999, the school building, which received a moderate damage report, was demolished by decision of the Governorate in 2011 and our new two-fold Mithatpasa Sehit Ahmet Akyol Elementary School building with 16 classrooms was built on the site. Since the 2013-2014 school year, our school has been known as Sehit Ahmet Akyol Elementary School. There are 16 classrooms in our institution. In addition, there is a meeting room and a room for games that stimulate the mind and intelligence. Due to its academic success and performance in national and international platforms and projects, it is a preferred educational institution in its neighborhood.

CHAPTER 3: OUTDOOR ACTIVITIES FOR STUDENTS PROGRESS AND WEELBEING

OUTDOOR ACTIVITY NO. 1

Context and participants

Teacher: Tezcan YILDIRIM

School: Şehit Ahmet Akyol Elementary School

Grade: 6-11 years

Pedagogical approaches: Active Learning

Targeted development components: They can comprehend odd and even numbers

Activity time: 1h class

Title of the activity: Odds and Evens Competition

The purpose of the activity: Learning the odd and even numbers

Aims of the activity: They can comprehend odd and even numbers

Methods: Expression, Learning by experience

Materials: Playground

The way of organization:

References:

The place of the activity: School garden

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Description of the activity:

Preceding Activity: The class is divided into two. Teams take their places.

Organization of place: Students move into the playground.

Explaining the rules: 2 groups are lined up side by side, 15-20 steps apart. Extending their arms to either side, they move far enough just to touch their fingertips. Then they lower their arms. Teacher give the students numbers one right and one left team. Thus, the class is divided into evens and odds. As soon as "evens" is said, even numbered students run around the odd numbered students and come back to their place.

During the Play: The last 3 students can be punished or the first 3 students who reach their place can be rewarded. The steps of the activity:

Reflection: Students learn the concept of odd and even numbers during the game. They can use it in daily life and other lessons.

Evaluation: With the observations made during the game, it can be observed whether the students comprehend odd and even numbers.

Images during the activity:



OUTDOOR ACTIVITY NO. 2

Context and participants

Teacher: Tezcan YILDIRIM

School: Şehit Ahmet Akyol Elementary School

Grade: 6-11 years

Pedagogical approaches: Active Learning

Targeted development components: They can determine the digit names of natural numbers and the place values of digits.

Activity time: 1h Class

Title of the activity: Movie Theater Owner

The purpose of the activity: To comprehend the digit names and place values in natural numbers

Aims of the activity: To comprehend the digit names and place values in natural numbers

Methods: Expression, Learning by experience

Materials: Paper, Pencil

The way of organization:

References:

The place of the activity: Class

Description of the activity:

Preceding Activity: The class is prepared. Task distribution is made.

Organization of place: Students move into the playground.

Explaining the rules: In this game, which develops the concept of digits in numbers, one student becomes the owner of the movie theater and the other student becomes a ticket holder. The owner writes how many viewers there are in the movies. The ticket holder places

the numbers in their digits with this data. The owner asks the ticket holder how much he has earned at the end of the day. The ticket holder must also read the generated number correctly.

Example "There were 5 audiences in the hundreds place, 4 in the ones place, and 2 in the thousands place." The ticket holder puts zero on the empty seats and says the revenue at the end of the day: "Two thousand five hundred and four."

During the Play: Students change their tasks every 5 games. During the game, the owner tries to trick them by saying the places in mixed order.

The steps of the activity:

Reflection: During the game, students learn places names and place values. They can use the knowledge they have learned in other lessons and in daily life.

Evaluation: At the end of the activity, the numbers are dictated on the students. They are asked to analyze these numbers, show the place names and indicate the place values.



Images during the activity

OUTDOOR ACTIVITY NO. 3

Context and participants

Teacher:Tezcan YILDIRIM

School: Şehit Ahmet Akyol Elementary School

Grade: 6-11 years

Pedagogical approaches: Active Learning

Targeted development components: They can do rhythmic counting.

Activity time: 1h class

Title of the activity: Baz / Fiz

The purpose of the activity: They can do rhythmic counting on specified numbers.

Aims of the activity: 5 by 5 - 7 by 7, aimed to learn rhythmic counting.

Methods: Expression, Learning by experience

Materials: -

The way of organization:

References:

The place of the activity: Class

Description of the activity:

Preceding Activity: The class is prepared. Task distribution is made.

Organization of place: Students move into the playground.

Explaining the rules: Students sit in a circle. Starting from first student, each student counts a number. Players should note that in numbers five and multiples of five (5-10-15-20 etc.), instead of saying the numbers, "base"; seven and multiples of seven (7-14-21-28 etc.) numbers should say "fiz". The person who says wrong is out of the game.

The game can also be played with other numbers. It can be simplified or complicated according to the grade level.

The steps of the activity:

Reflection: Students learn rhythmic counting during the game. They can use the knowledge they have learned in other lessons and in daily life.

Evaluation: At the end of the activity, students are given rhythmic counting in the specified numbers.



Images during the activity

Context and participants

Teacher:Tezcan YILDIRIM

School: Şehit Ahmet Akyol Elementary School

Grade: 6-11 years

Pedagogical approaches: Active Learning

Targeted development components: They can identify the geometric shapes and comprehend the features.

Activity time: 1h class

Title of the activity: Triangle Cheese

The purpose of the activity: Comprehending the geometric shapes features.

Aims of the activity: Comprehending the features of the triangle and drawing different-sized triangles

Methods: Expression, Learning by experience

Materials: Plotting paper, Coloured Pencil

The way of organization:

References:

The place of the activity: Sınıf

Description of the activity:

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Preceding Activity: The class is prepared. The class is divided into two.

Organization of place: Students move into the playground.

Explaining the rules: The playing field is prepared by placing dots at the corners on a plotting paper. Two people facing each other draw lines with different coloured pencils, connecting the dots in turn. The person who draws the third line, which can close the triangle with two sides, writes the first letter of his name inside the triangle. At the end of the game, the person who closes the most triangles wins the game.

During the Play: It is a game that can be played easily anywhere if you have paper and pen.

The steps of the activity:

Reflection: During the game, students recognize the triangle and learn its features. They can use the knowledge they have learned in other lessons and in daily life.

Evaluation: At the end of the activity, students are asked to form triangles from different objects. They are asked to say the number of vertices and sides, and to show their vertices and sides. Students are notified about every geometric shape is named according to the number of sides.

Images during the activity:



Context and participants

Teacher:YASİN ŞİMŞEK

School:ŞEHİT AHMET AKYOL PRIMARY SCHOOL

Grade: 6-11 AGES

Pedagogical approaches: Love of nature and Scenario-based learning

Targeted development components: Formation of awareness of conservation of natural resources in students. Educating environmentally conscious students.

Activity time: 30 minutes

Title of the activity: A drop of water

The purpose of the activity: With this activity, we want children to become conscious citizens by gaining environmental sensitivity and love of nature.

Aims of the activity: One of the best ways to protect water resources is to plant nature. **Methods:** Active learning, discussion

Materials: soil, pet bottle, water, grass, stone, paper

The way of organization:

References:

The place of the activity: Classroom

Description of the activity:

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Preceding Activity: Material procurement and preparations are made.

Organization of place: A suitable environment is created in the classroom.

Explaining the rules:

Thes steps of the activity: 3 different pet bottle materials are prepared. Stone and paper are placed in the first bottle, mud mixed with plastic is placed in the second bottle, and plants grown on the soil are placed in the third bottle. The same amount of water is left over the plastic bottles, observed for a certain time, and after the glass at the bottom is filled, the students are asked according to their color, which water is cleaner.

Reflection:

Evaluation: The biggest cause of water pollution is the presence of organic compounds in the water. Reducing the particles in the water significantly reduces water pollution. It acts as a filter by filtering the soil and plant water and cleans the water.

Images during the activity



Context and participants Teacher:GÜLSEN ÖZDEMİR School:ŞEHİT AHMET AKYOL PRIMARY SCHOOL Grade: 6-11 AGE

Pedagogical approaches: Skills and Learning

Targeted development components: Keeping the body in suitable positions during the activity, providing eye contact and coordination.

Activity time:15 minutes

Title of the activity: Give a Pass

The purpose of the activity: With this activity, we want children to establish good communication with their friends and get along in harmony.

Aims of the activity: Being understanding and adaptable in their behavior towards their peers.

Methods: Learning by doing

Materials: Ball and Barge

The way of organization:

References:

The place of the activity: Outdoor Area

Description of the activity:

Preceding Activity:

Organization of place: Open area where station can be set up.

Explaining the rules: Pay attention to the time, pay attention to the order of the station.

Thes steps of the activity: Stations are created according to pass types and different sports branches.

Players are evenly dispersed across stations and practice pass types for a set amount of time.

The event continues with players working clockwise at the next station.

Reflection:

Evaluation: The students made inferences about this by seeing that some players always make accurate passes.

They tried to try different positions and find the best position to get the ball.

They understood the importance of working in harmony with the partner and the group.

We have come to the conclusion that this activity is very beneficial for their development.

Images during the activity



42

Context and participants Teacher:YASİN ŞİMŞEK School:ŞEHİT AHMET AKYOL PRIMARY SCHOOL Grade: 6-11 AGES

Pedagogical approaches: Skill and Learning, Problem based learning, learning by doing

Targeted development components: Keeping the body in suitable positions during the activity, providing coordination.

Activity time:15 minutes

Title of the activity: TRACK

The purpose of the activity: With this activity, we want children to communicate well with their friends and be aware of their bodies.

Aims of the activity: We want them to be understanding and adaptable in their behavior towards their peers.

Methods: learning by doing

Materials: casual clothes

The way of organization:

References:

The place of the activity: an established track area or a square where a track can be set up

Description of the activity:

Preceding Activity:

Organization of place: Outdoor area where track can be set up

Explaining the rules: Pay attention to the time, pay attention to the track order Thes steps of the activity: Students are divided into groups according to track types.

The players are evenly distributed on the tracks and try to finish the track in the determined time.

The event continues with players working on the next track clockwise.

Reflection:

Evaluation: The students made inferences about this by thinking why they were not successful in some tracks.

They understood the importance of working in harmony with the partner and the group.

We have come to the conclusion that this activity is very beneficial for their development.

Images during the activity



Context and participants Teacher: YASİN ŞİMŞEK School:ŞEHİT AHMET AKYOL PRIMARY SCHOOL Grade: 6-11 AGE

Pedagogical approaches: Cooperative learning

Targeted development components: Students to work in harmony with their collaborative friends.

Activity time: 20 minutes

Title of the activity: Garbage Hunters

The purpose of the activity: With this activity, we want children to work in cooperation and harmony by establishing good communication with their friends.

Aims of the activity:

Methods: Working collaboratively

Materials: Gloves, mask, garbage bag

The way of organization:

References:

Description of the activity:

Preceding Activity:

Organization of place: Areas that should not be visited around the school are marked.

Explaining the rules: Collected bags must be placed in the designated area. After emptying, a new bag should be taken.

Thes steps of the activity: Students are divided into certain sections of the school according to groups. Each group brings the bag they collected to the field. If it is wanted to be made into a race, the group that collects the most bags wins.

Reflection:

Evaluation: Students understood the importance of keeping their environment clean. They understood the importance of working in harmony with the partner and the group. We have come to the conclusion that this activity is quite beneficial.

Images during the activity



Context and participants Teacher:YASİN ŞİMŞEK School:ŞEHİT AHMET AKYOL İLKOKULU Grade: 6-11 Age

Pedagogical approaches: Nature love and empathy.

Targeted development components: Formation of awareness of nature conservation in students. Educating environmentally conscious students.

Activity time: 30 minutes

Title of the activity: A sapling a life.

The purpose of the activity: With this activity, we want children to become conscious citizens by gaining environmental sensitivity and love for trees.

Aims of the activity: We want children to have the idea of protecting trees.

Methods: Learning by doing Materials: Spade and plastic bottle

The way of organization:

References:

The place of the activity: Garden

Description of the activity:

Preceding Activity: Material procurement and preparations are made.

Organization of place: Open field for planting seedlings.

Explaining the rules: Everyone's place should be clear. Saplings should be planted 3 m apart.

Thes steps of the activity: The saplings that need to be planted according to the season are researched by the students. The seedling planting area is determined. The pits to be planted are dug and the planting process is carried out by the students.

Reflection:

Evaluation: In this activity, students gained environmental awareness, beautified the environment, and enjoyed working with their friends. They understood the importance of working in harmony with the partner and the group. We have come to the conclusion that this activity is very beneficial for their development.

Images during the activity



Context and participants

Teacher:Tezcan YILDIRIM

School: Şehit Ahmet Akyol Elementary School

Grade: 6-11 years

Pedagogical approaches: Active Learning

Targeted development components: They can do the rhythmic counting.

Activity time: 1h class

Title of the activity: Ten Pass

The purpose of the activity: They can do rhythmic counting on specified numbers.

Aims of the activity: It is aimed to learn to count rhythmically up to 10.

Methods: Expression, Learning by experience

Materials: Ball

The way of organization:

References:

The place of the activity: School garden

Description of the activity:

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Preceding Activity: The class is prepared. Task distribution is made.

Organization of place: Students move into the playground.

Explaining the rules: Class divided into two groups. We determine which team starts with the ball. The other group tries to catch the ball or touch the ball. The team who has the ball, start to pass the ball by throwing it to each other with their hands. Each pass counts to 10 out loud as they pass each other. If the ball falls to the ground or touches the opposing team's hand while the pass is in progress, the ball passes to the other team. Holding, pulling or pushing the opponent is forbidden during the game. The group in the middle tries to touch the ball or drop the ball to the ground.

During the play: In order for the students in the same group to see each other comfortably, teams can be formed in the form of boys and girls, teams can wear different colors of clothes/jerseys, and only one set of berets.

The steps of the activity:

Reflection: During the game, students learn to count rhythmically to 10. They can use the knowledge they have learned in other lessons and in daily life.

Evaluation : At the end of the activity, students do the rhythmic counting. **Images during the activity**



Context and participants

Teacher:LIVIU-ALEXANDRU CALFA

School: SECONDARY NO. 1 HURDUGI

Grade: 6-7 years

Activity duration: 30 minutes Activity title: Spring

Purpose: to consolidate knowledge about spring, adapting it to the destination and purpose of

communication

Operational objectives:

O1: To write words with the help of natural materials;

O2: To identify the message of the read text;

O3: To draw a spring landscape inspired by the read text;

Teaching strategy:

Didactic methods: conversation, explanation, problematization, didactic game;

Teaching aids:

Necessary equipment: training

Required materials: natural materials, chips, colored chalk;

Mode of organization: individually, in groups

Financial resources (if applicable): ------

Place of activity: sports field

Description of the activity:

Preceding activity:

The activity is carried out after this topic has been discussed in class.

Space organization:

The activity will take place on the sports field. On its edge, students will find different materials (twigs, pebbles, leaves, etc.) that they will need to write certain words.

Explanation of the rules:

Each group will write their name with nature materials, then each student will read a spring text. After reading the text, each group will have to make a drawing on the asphalt that reproduces the image of spring. It is mandatory for students to use as many elements as possible found in the text.

The steps of the actual activity:

Students will be divided into two groups. Each group will have to choose a name, then write it on the asphalt using the materials they find on the side of the sports field.

A text is to be read. After reading the text on the sheet, the students will have to make a drawing on the asphalt to reproduce the text exactly as they understood it.

Ending the group activity:

At the end of the activity, one representative from each group will present the group drawing in front of their colleagues, and they will evaluate it.

Activity evaluation:

Students' creativity is identified and developed, while their knowledge about the spring season is also known and verified.

Pictures during the activity



Context and participants

Teacher:ANAMARIA BALAN

School: SECONDARY NO. 1 HURDUGI

Grade: 6-11 years

Activity Title: Treasures Hunt

Time allotted: 20-30 minutes

Type of activity: training of skills and abilities

Venue: School yard or park

Financial resources: necessary

Purpose of the activity: children acquire knowledge about plants and animals, the way and type of feeding, living environment, information about the environment.

Operational objectives:

01 - to recognize the species

02-to name the discovered species

03- to establish the relationship between the animal or plant and the environment in which they live

04- compose a riddle, a slogan or a logo about the discovered creature

05- to actively participate in the activity

Teaching strategy:

Methods-procedures: conversation, problematization, didactic game, demonstration.

Educational materials: boxes, glue, letters that make up words, animal models, plants (glasses with snowdrops, tulips, hyacinths, thuja) envelopes, labels, magnifying glasses, shovels, sprinklers.

Method of organization: Team work

Bibliographic resources:

Anca Ciolac Russu, Maria Ciurchia, Ion Iordache - Science teaching methodology

Biological EDP, Bucharest 1983

Biology teaching methodology, Naela Costică, Graphys Publishing House, Iasi, 2008

Description of the activity:

Preceding activity

The teacher will have a discussion with the students regarding the activity that will be carried out. They are informed that they will participate in an outdoor activity. At the same time, the necessary materials are being prepared

2. Organization of space

The space for the activity is set up in the school yard. A perimeter is established in which the activity will take place with materials necessary for the good development in the open air.

3. Distribution of material resources

4. Explanation of the rules

Students will be divided into teams and they will have to talk about what is in the box? There will be 25 boxes that will house either a plant or an animal.

After opening the box, the students will describe the animal or plant as they think is most beautiful, but with following questions. What is it? Where does he live? What does he eat? Do we meet him here? Does he have a specific sound?

In the box they will have a surprise element that will consist of cut letters and they will compose an image from a puzzle. The students will assemble the word and say out loud what the result was.

The students will plant the plant species in the school park or garden.

5. The actual activity

The students are divided into teams and will carry out activities to discover the world of living things macroscopically or with the help of a magnifying glass.

The students communicate with each other and help each other, they act as a team.

The students discover what is hidden under the box and together they have to rebuild a puzzle from the pieces of paper and compose a key word from cut letters. When finished, they must describe the species and describe it as beautifully as possible, after which they must think of a logo, riddle or slogan about the presented creature.

The plant species will be planted in the school yard.

End of activity:

At the end of the activity, the students will be rewarded with apples and chocolate.

Results:

Students draw conclusions about the necessity of outdoor activities and protecting the environment.

Images during activity



Context and participants

Teacher:JENIŢA ANTOHI

School: SECONDARY NO. 1 HURDUGI

Grade: preschool level

Targeted development components:

- developing interpersonal and teamwork skills;

- developing the capacity for initiative, organization, evaluation;

- developing a positive attitude towards the environment.

Activity duration: 3 hours (4 centers x 30 min; presentation 10 min; break after 2 rotations 10 min)

Activity title: Activity on centers – Step by Step

The goal: developing the ability to use nature and its elements as a source of learning

Operational objectives:

Reading - to read given texts expressively;

- to identify by underlining poetic expressions;
- to organize a literary assembly poll;

Writing-to recompose poetic expressions from given sequences;

- to use the expressions discovered in a literary composition of their own;
- Mathematics to estimate the required dimensions of some objects in the environment;

-to carry out measurements for required objects/dimensions;

- to record the data in the files;

Science-to identify bodies with/without life in the environment;

- to classify identified materials into natural/processed, resources

exhaustible/inexhaustible;

- to conduct an interview with an element from nature.

Teaching strategy:

Didactic methods: explanation, exercise, directed observation, role play, elements of problematization, conversation.

Teaching aids:

Equipment required:-

Materials needed: worksheets, cut strips (poetic expressions), glue, chalk, tape measure, carpenter's tape measure

Method of organization: activity by centers (reading, writing, mathematics, sciences)Financial resources (if applicable):-Bibliographic resources: School curriculum for the 3rd grade

Place of activity: in the school yard

Required documents:-

Description of the activity:

Preceding activity:

- The morning meeting (Everything about today, Agenda of the day, News, Message-Attachment 0);

-PPT-Learn from everything - poems by Rudyard Kipling - discussions;

- distribution of students by center;

-preparation of the necessary materials.

Organization of the space:

- the place where the activity is carried out for each center is explained activity;

Explanation of the rules:

- the tasks for each center are explained, the materials are presented;

- the activity lasts 30 min
- -before each spin we meet at the stage where we watch
- presentation of the activity of the reading center (10 min).

The steps of the actual activity:

Reading – Annex 1 Writing – Appendix 2 Mathematics - Appendix 3

Sciences – Appendix 4

Ending the group activity:

At the "Author's Chair" the activity of each center is presented, discussed,

the tasks worked are corrected/completed.

The individual stage of reflection on the activity: Appendix 5

Evaluation of the activity: the students' involvement in the activity is discussed, the aspects/tasks they liked and those that confused them, the way they collaborated in teams; proposals are made for other activities.

Images during activity





Context and participants Teacher:LIVIU-ALEXANDRU CALFA School: SECONDARY NO. 1 HURDUGI Grade: 4th grade

Title of activity: Let's count !

Alocated time: 50 minutes

Type of lesson: knowledge recapitulation

Place of unfolding: Local park

Equipment: sportswear

Necessary documents related to movement: will complete all the documents for approving the exit from the school

Financial resource: are not required

Lesson objective: Recapitulation of knowledges related to writing, comparing, ordering and rounding number less than or equal to 1 000 000

Operational objectives:

O1: To read numbers less than or equal to 1 000 000;

O2: To arrange ascending and descending numbers;

O3: To verbally compare natural numbers less than or equal to 1 000 000;

O4: To discover the coded message, converting Arabic numbers to Roman numerals;

Teaching strategy:

Methods-procedures: conversation, exercise, problem solving, didactic game;

Educational materials: stickers with numbers, nails, perforator, chips, flipchart sheet, markers;

Organization mode: individually, in pairs, frontal; 59

Bibliographic resources:

Masari, Gianina-Ana, (2013), 4D in Education, Iasi: European Institute;

Masari, Gianina-Ana, (2012), *Theory, practical training and assessment*, Iasi:Performantica Publisher;

Petrovici, Constantin, (2014), Teaching mathematics for primary school, Iași: Polirom.

Description of activity:

1. Precursory activity

The activity is realized after the lesson "Natural numbers less than or equal to 1000000" was previously taught.

2. Organization place

The chosen space for the activity is the local park. Establish a certain perimeter for the activity and within it hide cards with numbers made up of four, five or six digits (the number of cards is the same as the number of students involved).

3. Distribution of material resources

4. Explaining the rules

Each student must find individually one chip which represents integers less than or equal to 1,000,000 that are hidden in the set.

Students will own the new name (example: if Maria find the number 54 500, she will represent the number 54 500).

5. Actual work

The teacher explains to students that in the area some numbers are hidden and for each one of them there is only one. After they find that number, they must stick it on the jacket and for that moment they represent the number.

Sequencing requirements:

- Please sit in ascending order!
- Now, please sit in descending order!
- The number 24 500, which is your predecessor and your successor?
- The number 50 000, which is your predecessor and your successor?

The students are asked to sit in a circle and follow a different set of requirements:

- Would the lowest uneven number written with 4 digits, please take a step forward?

- Would the largest natural number with five digits please take a step forward?

Further, students who were previously forming a circle will be grouped in two columns, one column would represent the even numbers, and the other column would represent the odd numbers.

Follow a set of exercises aimed at comparing numbers. The numbers are facing each other, make conversation between two numbers:

Explain the rule and give an example: 1- I am number 27 500 and I am bigger than you because I have more digits / I am number 6 750 and I am smaller than you because I have fewer digits; 2- I am number 23 320 and I am bigger than you because I have .../I am number 23 100 and I am smaller than you because I have...

End of work:

At the end of the activity, students will have to discover a coded message.

In the park there will be hidden numbers that represent Roman numerals. After being found, the teacher gives the code. The code actually means transforming Roman numerals into Arabic numerals.

The Arabic numerals will have attached a letter. The students will discover the message " I wish you success with the exam!" (See Annex 2).

Sugestions for other activities:

The students are divided in groups of six and they have to arrange certain numbers that are fixed on the ground

Results:Verify that students have learned notions about natural numbers less than or equal to 1 000 000.



Context and participants

Teacher:MIHAELA GHIBAN AND DANIEL GHIBAN

School: SECONDARY NO. 1 HURDUGI

Grade: 4th grade

Targeted development components: cognitive, social, emotional, physical development

Activity duration: 3 hours

Activity title: Spring in our garden

Purpose: Ecological education of students through involvement in practical and creative activities

Operational objectives:

O1. to explain the origin of the name of the water lily after reading the

legend;

O2. to recognize some flowers specific to spring;

O3. describe the component parts of a plant and their role;

O4. observe the planting stages of a flower;

O5. to plant the purchased flowers in the school garden;

O6. to carry out the initial care work;

O7. to collect plastic containers for decorating the garden;

O8. to make the water lily bells-decoration (painting, cutting,

assembling);

O9. to fix the obtained work in the designated places in the garden.

Teaching strategy:

Didactic methods: reading, conversation, explanation, demonstration, problem solving, instruction, creative activities, practical works

Teaching aids:

Required equipment: gloves

Necessary materials: computer, camera, botanical atlas, ppt-images, gardening tools (rake, hoe, sprinkler, bucket, trowel), flowers, plastic bottles, lime, brushes, scissors, wire.

Mode of organization: face-to-face, individual, in groups

Financial resources (if applicable): parental sponsorship

Bibliographic resources:

• Tudora Pițilă, Cleopatra Mihăilescu, Natural sciences, textbook for the third grade, Aramis Publishing House, 2004;

• Cleopatra Mihăilescu, Tudora Pițilă, Ioana Ghimbaş, Natural sciences, fourth grade textbook, Aramis Publishing House, 2006;

• Gheorghe Mohan, Aurel Ardelean, Atlas Botanic, All Publishing House, 2010.

The place of the activity: the classroom and the school garden Required documents: botanical atlas

Description of the activity:

 Preliminary activity: reading session about plants and their living environment; audition of "Legend of the Lily of the Valley"

2. Planting flowers in the garden: carrying out training on the use of gardening tools and preparing the space for planting; establishing the place of each plant, depending on the variety and color; demonstration of planting stages; actual planting and watering;

3. Making the decoration: painting the bottles, cutting out the bells, making the wire support, assembling the component parts; fixing the "water lily - decoration" in the school garden

Space organization:

1. The classroom was organized for reading time, with the necessary materials.

2. The land and work materials were prepared according to the work stages.

3. In the painting workshop, the necessary materials were prepared for making the decoration.

Ending the group activity: There were discussions regarding the development of the entire activity during the three work stages.

The individual stage of reflection on the activity: Following the activity, the students observed, understood that nature must be respected, loved and protected, they experienced the way in which flowers are planted, the way in which we can arrange the environment.

Evaluation of the activity: Throughout the activity, a self-evaluation was carried out both by the teacher and by the students, of the permanent monitoring of the activities carried out.

Images during activities





Context and participants

Teacher: LIVIU-ALEXANDRU CALFA

School: SECONDARY NO. 1 HURDUGI

Grade: 2th grade

Bean's diary

1. Context and participants

Participants: 20 children from primary school (age between 6 and 7 years) 1 teacher for primary school

2. Pedagogical approaches

Friendships are extremely important for children in primary school. The ability to socialise with peers, negotiate disagreements and be part of a friendship group is paramount. For children, making and maintaining friendships can be a real challenge. It becomes particularly difficult as children progress through primary school, when there needs to be an increased understanding of reciprocity and awareness of motives, thoughts and feelings of others.

In the early stages of primary school, children learn to share their feelings in words, consider the effects of their actions, reflect on and plan what they feel, do and say. All of this requires an appreciation of the emotions and thoughts of other people, and the language to put this into words. There are opportunities in school and in the playground to play and interact through language, which allows children to develop skills in managing their emotions and behaviour appropriately. With developed language skills, children can negotiate their roles in play situations, organise activities, clarify their thoughts to others and make it clear when they are unhappy with a situation.

This activity promote critical thinking, the applicability, awakens curiosity for the environment, improve the quality of communication act.

3. Teaching and learning experience (description)

With this activity we want that children observe and understand the importance of following policy in a civilized communication.

Planification of the experimental work

First step: This activity in particular, arose from a situation experienced by children when they didn't know that when we communicate we must respect some important rules: we must'nt yell, we must learn that when someoane talk, the others have to listen. So, we want to see how is the student behavior against plants, if there are differences between child behavior towards his peers and child behavior towards plants.

2nd Step: What do we want?

The main objective: to improve the quality of communication act and group cohesion; The secondary objective: a plant evolutionary stages, conscientiousness and responsibility



Experimental Work

Materials: beans , three bowls, ground, water

Procedure: Students have made three bean sprouts. Added of earth covering all grains in each bowl and placed them at the window. Were sprayed with water every day with " different words " beans from the first bowl were nice words said, the second, were at odds, and with the third did not speak at all. It repeated these steps for 10 days, during which the students wrote in the " diary beans " what happened in each bowl every day.

Main Finding or discussion

4th **Step:** The discussion of the observed data was focused on the difference between those three bowls.

Almost all children attention was focused on the first bowl. They didn't want to sprayed with water the second and the third bowl because they just wanted to take care of the first bowl. Five of them wanted to sprayed with water only the second bowl. When I asked them why, they said they did not know nice words for the first bowl.



5th Step: In this activity the children were encouraged to express their feelings to a plant, through words, following the students to realize the importance of the communication, socialization.

Reflection

Learning by discovery as a method has been instrumental in this experiment.

Through these activities the students have noticed how a plant grows respecting all the necessary conditions (water, air, light, earth, warmth, harmony, beautiful words), and following this activity, students have realized that to develop properly, people needs all these elements.

It has been ensured that in this experiment students has to be responsable, it was observed their involvement in this activity.

This experiment was an effective one because the knowledge and skills that they form are lasting.

4. Using in other contexts and age groups

The practical activities are those who put the students in new situations of learning.

To be more accountable, students can receive various tasks. For example they can investigate the burgeoning period of a tree until the fruit formation.

This activity can be achieved in kindergarten and middle school, tasks and difficulty of the experiment is under age.

5. References

- Masari, G.; Seghedin E., (2012), *Theory and Practice Training and Evaluation*, Iaşi: Ed Performantica;
- 2. Şoitu, L., (2013), 4D in Education, Iași: European Institute;