



PRESCHOOL ECOLOGICAL EDUCATION METHODOLOGY



*"We do not inherit the earth from our parents,
we borrow it from our children."*

- Antoine de Saint-Exupéry

*„The best class – eco- education,
no matter if you read or count
in view of earth’s degradation”*

- Irena Oksińska

Introduction

The environment we live in is being degraded at an alarming pace. In many countries all over the world there are various measures undertaken in order to cease this process. A step-by-step approach consists in making our societies aware of the problem. The pollution of air, soil, water, or forests heavily affect our lives and the functioning of our children. So let’s analyze the role of our kids while making significant changes to our destroyed environment. We are the ones who undertake different actions for our offspring and want to give them back „a borrowed land” in a good condition.

When, in fact, should we start ecological education? Honestly speaking, we should not to make them aware deliberately, we ought to conduct very suggestively from the very beginning, giving them a good epitome to follow, thus raising their eco-awareness. Our children should be conscious of the ecological problems and should know they are inseparable part of nature. Good habits, which we have to instil in elder generations, ought to be something natural for our offspring. In this process preschool education plays



a vital role. Teachers pass the basic ecological knowledge and consolidate it in pupils. Arousal of the need for knowledge, understanding and curiosity account for the main goal of the aforementioned institutions. Jan Frątczak (the Polish pedagogue, researcher and scientist, focused on ecological issues in his publications) perceived ecological education as *expanding knowledge, practical and theoretical skills, as well as developing sensitivity and emotional willingness to act in favour of environmental protection*. Ryszard Więckowski believed that *“curiosity of the world is the prerequisite of environmental education effectiveness. An external symptom of this curiosity is children’s questions oriented on environment”* (*Pedagogika wczesnoszkolna, WSiP, Warsaw 1993*).

As Jean Piaget states a preschooler develops through an active contact with their environment, and more specifically through:

- ✓ experiences,
- ✓ impressions,
- ✓ senses and sensations,
- ✓ emotions.

Summing up - anything which is oriented on actions is conducive to the growth of preschoolers. Therefore, in curricula we can read that pre-school “supports multidirectional activity of a child through creating proper conditions which foster gaining their experiences in a physical, emotional, social and cognitive respect”. The preschool curriculum also assumes “creating conditions allowing a child’s safe and independent exploration of nature, at the same time stimulating sensitivity growth and familiarizing them with environment-oriented norms and values, appropriate for their developmental stage.” (podstawaprogramowa.pl/Przedszkole; information obtained from the representatives of partner countries).

Objectives of preschool ecological education

In order to raise a pro-ecological human we should properly guide our children, and as a result, they will take steps aiming to protect environment in future. A daily preschool routine involves pro-ecological activities which should be done by kids automatically, like habitual handwashing. The main goal of preschool ecological education is to form habits aimed at ecological thinking and acting.

The tasks and responsibilities of preschools in the scope of environmental education:

- ✓ creating conditions/ situations which foster the development of habits and behaviours leading to independence, caring for one's own health, physical activity and safety, including traffic safety, and conditions allowing a child's safe and independent exploration of nature, at the same time stimulating sensitivity growth and familiarizing them with environment-oriented norms and values, appropriate for their developmental stage;
- ✓ supporting multidirectional activity of a child through creating proper conditions which foster gaining their experiences in a physical, emotional, social and cognitive respect;
- ✓ cooperation with mothers/ fathers, various environments, organizations and institutions recognised by parents as a source of essential values to create conditions allowing a child's identity development.

Information obtained from the representatives of partner countries and their reports clearly indicate that the tasks and responsibilities of preschools in the scope of ecological education are convergent with the Polish core curriculum.

In order to complete the above tasks it is worth noting that preschoolers develop mainly through multisensory activities and exposure to nature provides plenty of opportunities – one can combine a classical observation with exploration with the help of senses: touch, smell, taste and hearing. Thanks to those stimuli kids build ties with nature and this, consecutively, helps to shape a pro-ecological attitude.

Preschool forms and teaching methods

So as to suitably adjust preschool forms and teaching methods, one ought to take a few factors into considerations, i.a:

- ✓ age and number of children,
- ✓ subject of a lesson/ class,
- ✓ a preschool's capacity (size of rooms, equipment, availability and size of garden),
- ✓ time and venue of classes,
- ✓ goals we want to achieve,
- ✓ kids' natural interest in the topic or piquing their interest/ curiosity if they are not familiar with the subject.

The frequently selected ecological education practices applied in preschools encompass:

❖ **eco-friendly area**

*spaces in the building or garden where kids can collect, present and watch diverse natural elements, which were most often gathered/ found by themselves

❖ **outings**

*every single outing on purpose being substantively correlated to the classes organised at preschool

❖ **thematic contests**

*contests can be organised on a small or large scale; they encourage kids to face challenges and more difficult tasks, thus evoking competitiveness; they foster creative thinking as well

❖ **works oriented on nature**

*such tasks can be combined with excursions and outings; they make kids think that they are inseparable part of nature and have an impact on the environment; such tasks also develop children's awareness of any actions for the common good

❖ **play**

*they can be created by a teacher to achieve the defined goals and attract kids' attention to the essence of the subject discussed by a teacher

❖ **music and kinaesthetic activities**

*they play a basic role to satisfy the need for movement; they help children get to know their own bodies; they teach kids to recognise the sounds of nature

❖ **little theatres – experiential education**

*they help children to be more sensitive to the situations depicted; they greatly foster verbal and non-verbal communication

Nowadays each pedagogue focuses on physical activity of kids, which remains in harmony with their nature. Three or six-year-olds need motion, freedom, a good example, rapidly-changing activities in order to keep interest in the task, or outdoor play. Activating methods are commonly used for work with toddlers and kids who are used to receiving lots of stimuli at the same time. The main goal of the above methods is to use spontaneity and readiness to take up various activities not only for kids' overall development, but also for gaining new skills, especially practical ones, expanding knowledge and raising awareness. Thanks to activating methods children are able to effortlessly remember a lot (even up to 90% as the research studies indicate).

What conditions should be met while working with young children to boost their creativity, activity and above all, their openness to new activities?

A child will actively participate in classes when they:

- ✓ **know and understand the purpose of the class** – it is difficult to motivate anyone to make an effort if they do not know what purpose this effort serves,
- ✓ **feel safe and their basic needs are satisfied** – children concentrate on classes best when they are full, do not want to go to the toilet, are relaxed and can play freely before,
- ✓ **receive some feedback** in the form of comments which are understandable for them, and when they are not criticised for the wrong answer and a teacher responds to their emotions with proper understanding and acceptance,
- ✓ **feel appreciated and their say is important** (e.g. while taking any decisions in the group),
- ✓ **build their self-esteem and feel satisfied with their work** (during classes).

The most frequently activation methods include:

Activity

A preschooler's creativity manifests itself with different forms of their activity. The role of a teacher is to create favourable conditions for the development of children's creative talents.

Education through play

That is the motto which comprises plenty of activating methods. It consists in creating favourable conditions and educational situations for acquiring new knowledge, skills and shaping attitudes in compliance with the assumed goals. It also allows to achieve the formerly defined developmental outcomes. In

order to properly implement the assumption of education through play one has to suitably prepare the group and take a few rules into account:

- principle of voluntariness – kids participate in any play under no sufferance,
- during play kids can communicate verbally and non-verbally,
- all participants' emotions are valuable,
- kids avoid competition, they focus on cooperation,
- “here and now” principle – one has to adjust the method to the current situation.

Music therapy and rhythmic play

The methods which base on diverse forms of musical activity include:

- singing,
- playing instruments,
- development and expression through motion (clapping, stamping, jumping).

The method can be used in individual and group work as it makes children joyful with music and develops their musical talents. It also provides them with self-confidence, sensitizes or satisfies kids' natural need for motion and self-expression.

Drama

It is a commonly used and widely spread activating method enabling self-cognition. Playing a specific role a kid expresses themselves, overcomes obstacles, learns how to be independent, as well as develops creativity and gains experiences. The most popular drama techniques comprise:

- *drama play,
- *little puppet theatres,

*Chinese little shadow theatres,

*pantomime.

Artistic expression

Artistic expression is one of the most frequently used techniques in preschools. This calming technique helps to develop manual skills, imagination and visual-motor coordination of a kid. The most commonly applied techniques include:

- drawing (with pastel, candle, pencil crayons),
- painting (with poster paints, watercolours, wet tissue paper, inks) on carton, foil, cardboard, towel paper, glass, etc.),
- cut-outs/ tear-outs (from coloured sheets, folded/ pressed tissue paper, newspapers, self-coloured/ painted sheets),
- moulding (from plasticine, modelling clay, Play-Doh, salt mass, ceramic mass, gypsum, paper, etc).

Artistic techniques help toddlers, infants and children to express themselves, especially when they are not willing to say anything. Such a working method provokes preschoolers to creative thinking and overcoming one's own hardships. Thanks to such an approach young children can learn to plan and make choices.

Didactic games

Didactic games foster a positive atmosphere to complete a given task. The most popular educative games encompass:

- word puzzles,
- crosswords,
- riddles/ rebuses,
- board games.

Games for educational purposes entail creative thinking, support active problem-solving, encourage the participants to communicate, play and have a fun.

Brainstorming

This method is also recognised as “a factory of ideas” or Osborn’s method. That’s a problem-solving technique by which efforts are made to find a conclusion for a specific problem by gathering a list of ideas spontaneously contributed by its members. While exchanging concepts, an important fact is that “every single idea is good” – at the initial stage. At the later phase all the ideas are classified according to the criteria established, and next the best ones which help to resolve the problem are chosen. This method allows kids to develop imagination, invites them to think creatively, makes shy and reserved participants more audacious to speak in public (when all ideas are accepted, children are not afraid that theirs will be rejected or mocked at).

Case study

It involves an up-close, in-depth, detailed examination of a particular case or event. Children are guided by a teacher in such a way to seek alternative solutions. Thanks to this method participants have to use their skills and experience in new conditions or while taking pertinent decisions.

Simulations

An ideal method stimulating preschoolers. Kids simulate some activities within a real-life context. This formula is intrinsically used by children when trying to imitate adults, thus turning it into a “monkey see, monkey do” approach (therefore, a teacher’s personal epitome is so important).

Classical methods which are more effective while working with preschoolers base on:



- ✓ action (it means allowing children to gain new experiences or explore nature, designing early years-kindergarten play-learning environments, encouraging kids to act, repeating some newly introduced activities to improve them, strengthening attitudes)

and

- ✓ observation (it means presenting any individuals/ specimen for observation, following adults' behaviours, experiencing art: graphics, pictures, comic books) (M.Kwiatkowska).

The aforementioned approaches appeal to preschoolers, whose developmental stage allows to remember best what they are doing and, which we often forget or ignore, what they can observe in adults' behaviours (a teacher's personal epitome). Hence, while selecting methods to achieve the assumed goals we can put particular emphasis on action.



ECO Superhero Project

The ECO Superhero project is being coordinated by Fundacja Strefa Inspiracji i Rozwoju (foundation 'The Zone of Inspiration and Development') from Poland, and implemented in cooperation with SYTEV from Slovakia and Zöldövezet Társulás Környezetvédelmi Egyesület (Green Belt) from Hungary. The main project's aim is to increase preschoolers' awareness of ecological issues and build good, pro-ecological habits.

The direct target group constitutes preschoolers.

The main project objectives:

1. Increase of awareness of local and global environmental issues among preschoolers.
2. Education and improvement of regional strategies in the scope of environmental protection, climate change and sustainable development.
3. Formation and reinforcement of pro-ecological attitudes and shared responsibility for the environment.

In alignment with the specific objectives a child:

1. segregates waste in accordance with the guidelines; reminds their family/ relatives of doing it;
2. spots and describes the differences between a destroyed object (which should be thrown away) and reparable stuff to be able to reuse it; gives examples of recycling;
3. distinguishes any threats resulting from fossil-fuel power station; gives the examples of renewable energy sources;
4. describes the correlation between particular elements of nature and the maintenance of ecosystem; respects nature; helps animals in winter;



5. understands the impact of human activity on fauna and flora in seas and oceans; highlights the importance of coral reef for underwater life.

Completion of project tasks through activities

The main project deliverable is a comic book. It consists of five episodes. Each part covers a particular ecological issue meaningfully illustrating the impact of human activity on the surrounding environment.

The topics covered:

1. Waste management and segregation
2. Zero hunger and responsible consumption
3. Clean energy
4. Nature protection
5. Climate change and underwater life

The main heroes of each episode are two elves – woodlanders who spot the influence of human activity, industry development, or a haste of city life, on the environment. The elves guided by a Wise Oak – humanoid tree who is their advisor – help people, town dwellers, to realize any dangers resulting from environmental degradation. The heroes also show locals how they can change their behaviours.

An example lesson plan

Topic: *Waste management*

Specific objective:

1. A child separates/ segregates waste in accordance with the guidelines.
Reminds their family/ relatives of doing it.

The activities proposed:

- a) Children learn to sing a thematic song about waste segregation (a teacher can make use of Internet Open Sources, any music applications or one's own collection).
- b) Kids familiarize with a comic book. A teacher reads it. Afterwards the group talks to the teacher about human behaviours and elves. Preschoolers can freely refer to their own experiences with waste segregation and caring for the common home – planet.
- c) A physical play “I am an elf, I clean the forest” – children run around the room pretending to be elves. When the teacher says e.g. “Elves sweep the leaves”/ “Elves squash plastic bottles”, they do it and next, start to run around again.
- d) A teacher presents preschoolers waste container colours:
 - green – glass
 - yellow – metal and plastic
 - blue – paper/ card
 - brown – bio-waste
 - black – co-mingled waste/ food waste

A waste segregation poem:

*Separate things and you should too,
Doing this job you will feel cool.
A green container is for glass,
A blue one – for paper – as taught on class.
Food scraps go to a brown bin,
A yellow box invites plastic and metal tin.
A black box receives the rest of waste,
Separate all stuff – not in a haste.
We must start now, we can't wait,
Fast, or it will be too late.
Let's save the planet, be proud of us!
What we do we can boast about.*

- e) Waste management and segregation. A teacher prepares some waste (toilet/ towel paper rolls, newspapers, sheets of paper, yoghurt boxes, plastic bottles, baggies, little jars, metal caps, plastic plugs/ stoppers, banana/apple peels, (scalded) egg shells), which children put into the marked waste containers. If there are no containers in the classroom, it is worth bringing them to educate kids by the rule “We think globally, we act locally”. Teachers remind kids of separating stuff on a daily basis.
- f) Actions/ little eco-campaigns aiming to make society more aware. Preschoolers can make a poster comprising their artistic works and a catchy slogan on waste segregation. During the walk they can hang the poster near the waste containers.

Forms and methods applied during activities:

- ✓ learning by doing:
 - *in a group while singing or playing; individually while separating items or doing some artistic works;
- ✓ moving and singing (a song about waste segregation);
- ✓ learning a poem;
- ✓ viewing method (M. Kwiatkowska): preschoolers familiarize with the comic strip, waste container colours and sorts of waste;
- ✓ active methods (M. Kwiatkowska): teachers boost kids' activity during the play "I am an elf, I clean the forest"; exercises (waste segregation, learning a poem).