

Providing Creative Contexts

**EDUCATIONAL PRACTICES ON CREATIVITY
IN EUROPEAN PRE-SCHOOLS**



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My mummy is happier
when children's hands are clean,
but the children are happier
when their hands are dirty!

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Introduction

» Juergen Hoerstmann



The CREANET Network involved 12 partners and 40 associated partners from ten European countries. Over a period of three years the partners worked on the topic of fostering creativity and creative thinking in preschool education. The aim was to develop a European forum for discussion, research and exchange of best practices from a multidisciplinary and cross-institutional as well as cross-national perspective.

Creativity was approached by focusing on two specific aspects, represented in two working groups: creativity and context (spaces, materials, relations), and creativity and expressive languages (artistic and verbal languages, body language). Between October 2010 and September 2013, preschool teachers met in four working group meetings and – together with the partners from universities – in three conferences. In all meetings, the presentation and discussion of good practices were an important part. In total, 36 projects and activities have been presented.

This booklet collects 20 examples how pedagogues in different countries work with creativity. It describes conditions offered, the methods used and the approach taken to give children the chance to express themselves, not only discovering but also creating their world. It is meant as a source of inspiration for pedagogues: The idea is not to take it as a “cook book” with all ingredients and the perfect recipe, but to learn from the colleagues’ experiences, using their starting ideas, tools and material or their understanding of the role of the adult as a partner of the child. All articles have been written by the pedagogues themselves.



The variety of practices is very broad. Some of them are programs that lasted one whole (school) year, others were just one-day or one-week activities. Some were especially implemented by the pedagogues while others took a child's question or remark as the starting point to develop the project. Some used an external impact (like the works of an artist or the city's anniversary) while others followed the children's passion to explore the world. Some introduced material which was new to the children (e.g. waste/recycled materials), others used just what nature offers. Some focused on mainly one dimension of creativity; others linked different ways of expression (painting, music, theatre, video).

Some texts focus more on the process itself, some describe the reaction and the "creative process" within the children, others focus on the role of the adult. The last two articles emphasize the chances of new media in preschool education and describe the specific environment and preconditions that are set in Sweden.

At the end of this publication, Chiara Bertolini (University of Modena and Reggio Emilia) evaluates all 36 projects and activities that were presented during the project period. Her conclusions of the "common ground" give priority to the role of the pedagogues, to the choice of material and to the setting in which children can explore, invent – but also where they can make mistakes.





Orlando and Angelica in the imaginary castles



Experiences and creative researches about the works of Boiardo

» *Ilaria Mussini*

This project was born from an invitation addressed to the municipal preschool by the Centre of Studies Matteo Maria Boiardo in Scandiano: working with children of five and six years in order to create a project centred on the chivalry poem “*L’Orlando Innamorato*” written by the famous Italian academic Matteo Maria Boiardo.

AIMS

- ◆ Promoting the knowledge of Boiardo’s poem through educational methods and strategies and to stimulate a closer approach to the classics of Italian literature by new generations.
- ◆ Creating an environment full of opportunities to learn, to experiment and to produce ideas and handcrafted products. The creation of such a context is based on the use of different kinds and amounts of informal material, the presence of frequently redefined indoor and outdoor spaces, a great amount of time dedicated to the exploration of material, the elaboration of ideas, the dialogue in the group and the creation of various works inside a conceptual framework – the chivalry poem – that assured temporal continuity to these experiences.
- ◆ Introducing children to the knowledge, the experimentation, the invention of various communication languages, reinforcing conceptual

learning and promoting creativity by holding connections between different symbolic systems.

- ◆ Supporting team work, collaboration, negotiation and debate as social amplifiers of creative processes.
- ◆ Strengthening the development of self-expression, self-esteem and curiosity as essential relationship dimensions for the building of self-identity. These dimensions define the creative personality also through a cosy, psychologically reassuring environment that gives value to children’s ideas and interests and facilitates pedagogues’ active listening.
- ◆ Supporting children in the solution of cognitive conflicts and in the management of open problem solving by promoting a reflection on actions and thinking processes triggered in the group and fostering the translation of children’s ideas in real projects.
- ◆ Introducing children to the practise of democracy.

THE PROCESS

As a start, pedagogues read the revised version of the poem by Roberto Piumini¹ during the morning lessons. Pedagogues took the role of the group coordinator and facilitated communication, cre-

¹ “Draghi, fate e cavalieri”. *Avventure di Orlando Innamorato*, Ed. Interlinea per Centro Studi Boiardo, 2008



ating a listening mood where no one felt judged, supporting the circulation of knowledge and points of view, creating connections between children's personal experiences and the book's content: "... Boiardo cake, just like Matteo Maria Boiardo, the one that invented L'Orlando Innamorato, that is a knight and a paladin".

The first information gathered by reading the most important parts of the poem were enriched by the visit to the Fortress of Scandiano (Boiardo's house) where children, dressed up as bold paladins and beautiful princesses, lived the battles against the enemies and danced on medieval music. *"In the Fortress there are swords, shields, helms, pictures of the knights of Matteo Maria Boiardo."* *"A long time ago the Fortress was a castle with knights."* *"The Fortress is a castle, there are rooms, there were princesses that hung out the laundry and slept there"*. Afterwards, pedagogues pushed the children to deepen their knowledge of the poem's characters through graphic and pictorial languages. The drawings were made individually and in small groups, with different tools and expression techniques and on different materials, giving children the opportunity to approach to different languages and to collaborate for collective drawings. The pedagogues gave open instructions which allowed children to find their own way to represent the characters.

The research on the characters continued in the game "If I were...", a useful technique for developing cognitive decentring, new points of view and

imagination. *"If I were Orlando... I would like to be the best paladin."* *"If I were Angelica...I would order the sky to always let the light shine."*

The visit to the castle and the insight on the poem's characters gave children the idea to design and build a castle. Pedagogues worked on the context, introducing different kinds

of informal material the children could use. They listened to children's advice on various possible changes. The children, after drawing many possibilities, chose freely and independently all the materials they could use to build three-dimensional castles. For some they used materials with different sensorial features

(wood, plastic, cork, metal, natural materials, etc.), while for others they preferred just one material, for example plastic glasses or wooden cubes.

The "constructive language" was the best environment to share knowledge, to debate and to manage children's problem solving skill linked to mathematical and scientific features (distances, balances, etc.). It was also a way through which children could use an associative and combinatorial language in order to create metaphors and similitude during a flexible day that could be modified following the events. *"The castle is like a town because it's long... it is a town indeed."* *"This is the castle made with imagination where there are stones, shells and flags on top."*



The big installation



A castle of clay

The castles, enriched with plastic animals and characters, changed into lively environments, inhabited landscapes, and frameworks for new ro-

mancing. *"It's the castle of the princesses... it's all white... it is like the castles in fairy tales... it's the dream castle."* *"Castles have watchtowers, they're made of stone."*

Later on, pedagogues offered children some clay for further investigation and research, a natural pliable material with great potential that gave life to more original constructions. *"My castle is made like a cavern."* *"I took away the towers and I put some grey paste or it would not stand."*

Pedagogues took the idea some children had to create a castle big enough to contain everyone and used it as a proposition for the whole group, bringing to life an installation positioned in the school square, through a fundamental transformation of the context. *"The imaginary castle can even have mouth and eyes. It can look like a town and, at sunset, it becomes beautiful, it lights up, with the light of the setting sun it changes colour."*

In a theatre workshop children were engaged in the crafting of masks and costumes with fabric and clothes and in the dramatization of the sto-

ry through different acting languages like body, voice, miming and imagination, playing different roles and inventing new plots.

The process ended with the invention of a collective story with the poem's characters. In this story the redefinition of the narrative elements, of time categories (past, present and future), reality and imagination could find a new and original dimension for possible future projects. *"Once upon a time there was a king that did everything he wanted... Angelica lived in a very ugly castle, because there was a small dragon that always set everything on fire..."*

SETTING

Municipality Preschool G. Rodari (Italy), School year 2010-2011; Pedagogues: Angela Belloni and Maria Antonietta Fabbri; Children aged 5 to 6 years.

*Ilaria Mussini, Pedagogical Coordinator,
Municipality of Scandiano (Italy)*



Dramatization into the castle



Children's fairytale

Based on lithuanian folk fairytales

» Virginija Letukiene, Renata Juodikaityte, Dagna Volkovaite



AIMS

- ◆ Preparing a puppet shadow theatre play.
- ◆ Developing children's abilities to learn, to find out, get interested and create.
- ◆ Making it possible for children to participate in creative activities while manufacturing puppets, creating the script of the play and recording the fairytale.
- ◆ Learning to communicate and cooperate in the process of the project preparation.

THE PROCESS

The children chose the fairytale and decided to perform it as a puppet shadow theatre play. Every child had to create – to draw – his/her puppet.

We tried a variety of shadow theatre puppet movements and how to control the movements.

Much attention was paid to the musical sound recording of the fairy-tale. We tried to reveal typical moods as well as the most characteristic and most significant features of the fairytale characters. A very interesting idea came to children: They proposed to use musical instruments in the fairytale performance. With that it was more cheerful and greater fun.

The shadow theatre play "Children's Fairytale" was presented to friends, parents, the kindergarten community and to the public. The children prepared a play-bill and drew the tickets for the spectators.

The feedback on the play was provided by children and parents after the performance.

ROLE OF THE PEDAGOGUE

The children's need for self-expression was fully satisfied. The pedagogues helped them, acting as facilitators and coordinators: They install the shadow theatre screen and the blinds on the group room windows.

They co-ordinated the children's creative work, and they fostered team-work and encouraged the children to get to know each other better, thus learning the art of communication and cooperation.



REFLECTIONS

We believe that the project has been successfully carried out. Children, pedagogues and parents gained extensive knowledge, experience, and a lot of positive emotions.

The project was good and very interesting for all participants of this project.

The children joined the project with great pleasure and developed their voices, movements and imagination playing with puppets. The mysterious shadow theatre puppets have a significant impact on children.

The change of light and darkness helps them to focus their attention faster and for a longer time. It allows feeling the stage space better and the children quickly gained confidence.

The children could perfectly express their ideas by creating shadow theatre puppets, by designing, drawing, cutting and colouring.

The integration of artistic and creative activities while working in a team helped to achieve excellent results in promoting children's art training competences.

The influence of the project on the child's personality development is universal: It helps children to understand and discover, to feel and learn more about themselves.

We received high support from administration, colleagues and children's parents.

The parents had an excellent opportunity to observe the results of creative artistic activities and they got more interested in the education of their children at the kindergarten.

SETTING

The project was carried out at the preschool "PU-RIENA", Klaipeda, Lithuania, from December 2011 to April 2012 (6 months).

Materials for different kinds of painting activities: gouache, ink, various types of colour, pencils, wax crayon, thick cardboard paper, transparent film; shadow theatre screen, screens, lighting lamps, searchlights.

Virginija Letukiene, Renata Juodikaityte,

Dagna Volkovaite, preschool pedagogues Lithuania





Animals' clothing

» Jana Grava, Vineta Pole

The project started with the question raised by children: “Why don’t animals wear winter clothes?” and the subthemes were found by the help of pictograms (see picture 1).

AIMS

- ◆ Investigating and improving children’s perception of “animal coats” in diverse activities.
- ◆ Encouraging the formation of children’s cooperative skills through working in groups.
- ◆ Promoting the participation of marginalized children in creative activities.

THE PROCESS

The project was carried out with 18 four to five years old children. The project approach in this group was a challenge for both children and pedagogues.

All children participated in the selection of topics and subtopics. They were working individually and in groups with common tasks that demanded a variety of holistic skills and involved all senses. In daily reflection the results of the project activities were presented.

Individual activities aimed on entering into the spirit of animal images of children’s choice, using a variety of materials and thus developing their imagination and fantasy. On the other hand, working in groups encouraged all children to partici-



1. Choosing the pictograms

pate and improved their co-operation skills; even shy and quiet children wished to participate.

As the result of the project, children made individual working folders (material samples, collages, photos, etc.) and the group’s presentation “Animals in winter clothes”.

The pictures give an insight into the process of the project (pictures 2, 3, 4 and 5).

CONCLUSIONS

The project activities resulted in promoting...

- ◆ independence – by encouraging to choose a theme, material, place and action; contributing to the skills to analyse, compare and conclude; promoting curiosity, self-motivation and tolerance of other children’s feelings and interests;
- ◆ risk taking – by promoting experimentation skills with all the expressive languages; encour-

aging children to realize their creative ideas using a variety of techniques and materials;

- ◆ self-expression – by interpreting animal images and behaviour; creating a story; reflecting daily activities; designing work folders and a final presentation.

Creating appropriate environment that meets children's curiosity needs, encourages research activities and involves all children. This makes the process more interesting, attractive, and easier to understand.

SETTING

Christian Preschool of Liepaja, Liepaja University, Latvia; a preschool setting (indoor activity); 04.-13.01.2013.

Materials: Pictograms and materials of different texture (hair, fur, fleece, etc.), images, clothing, recorded animal voices.

*Jana Grava, director of the study programme "Preschool Teacher",
Vineta Pole, preschool teacher (Latvia)*



2. There will be a book "Animal fu coats!"



4. Fashion Show "Dog, mouse, cat and fowl"



3. Creating a story about animals



5. Preparing garments for animal



The ocean project

» Anna Sipilä



Making the sea animation

The Luhtaa Day Care Centre (Luhtaan Päiväkoti) opened its doors in January 2012. Our Pedagogy Strategy was to use new creative methods, so the Creanet project in the very beginning of our journey opened new sights and also challenged our creativity.

The City of Tampere in Finland has invested into new media technology in our Day Care Centre. The challenge was to make use of all the technology new to the children as well as to the educators. Our focus in media pedagogy is in self-expression through different forms of art, and what we lat-

er learned was that it increased the possibilities of creativity and the opportunities for participation.

THE PROCESS

The Ocean Project took place in the spring of 2012 in a sibling group “Luupit” with children between one and five years.

We wanted the project to include and combine playing, movement, exploration and self-expression. In this project, multimedia, technology and creativity were all interacting with these aspects of acting and learning, peculiar to children.

The children were unprejudiced and naturally interested in technological gadgets.

The educators and children were learning together how to use the equipment and how to make an animation, so the educators weren't just pedagogues – they were also students.

The children were working mainly in small groups and all participated in the project through a variety of age-appropriate activities.

Through books, the children learned what could be found in the ocean.

The art for the ocean background and the sea-life was done with various techniques.

We wanted to make our first animation as simple as possible because of the lack of previous experience.

The movement of the fish “swimming across the screen” could be easily animated by taking photos

with a document camera and moving each fish a little in between the shots.

As the responsibility of the proper technique was on the educator, for the children the making of the animation was like playing, and stories of the fish interacting with each other started spontaneously. What caught the imagination of the girl-dominated group were mermaids.



"Reporters" are doing a story of how the ocean artwork was made

By adding music, we used the animation as a music video on a big screen background and rehearsed a mermaid dance which we performed in the opening celebrations of our Day Care Center. We also made paper-doll mermaids and pirates using photo prints of the children. These dolls were used for playing and making up stories together with the sea animation that could be played on a digital frame.

The sea-life art hanging on our wall was also a topic in another project where we made a web magazine of our Day Care Center with the children as reporters and cameramen.

The ocean theme continued also in the children's drawings, plays, games and songs.

The possibilities of technology inspired the creativity of the educators as well as the children's in many ways: we learned a lot about the use of the technology and its pedagogical application.

Technology gave our creativity bigger wings we thought possible as it enabled us to save, continue, develop, share and restore our plays, art and stories.

Anna Sipilä, kindergarten teacher, Luhtaa Day Care Center, Tampere (Finland)



The sea animation is playing on the background as the children are playing with their mermaid paper dolls



The snow and ice project

» Anna Sipilä



In the winter of 2012-2013, the group “Luupit” got familiar with the world of Ice and Snow.

We combined Outdoor, Art and Media Pedagogy. The methodology was similar as in our previously carried-out Ocean Project where the educators had the role of introducing the theme to the children and directing the activities.

We encouraged the children to ask questions, participate and create.

The educators made the computer applications easy to use for children and searched visually appealing, age-appropriate and safe websites from the internet.

THE PROCESS

Movement and playing in the outdoor environment is a daily practise in Finland even in the extreme winter conditions with lots of snow, ice and temperatures below zero.

In this project we learned just how fun, healthy, inspiring and educational learning environment the winter conditions can be.

The project increased the children’s understanding of the winter elements. Also the less restricted and defined, but more physical playing environment challenged the imagination, creativity and motor skills of the children.

The snow activities outside are countless: for example shovelling, sledding, gliding, digging tunnels, wrestling, making figures and playing games.



Making an ice-skating performance on the Smart Board

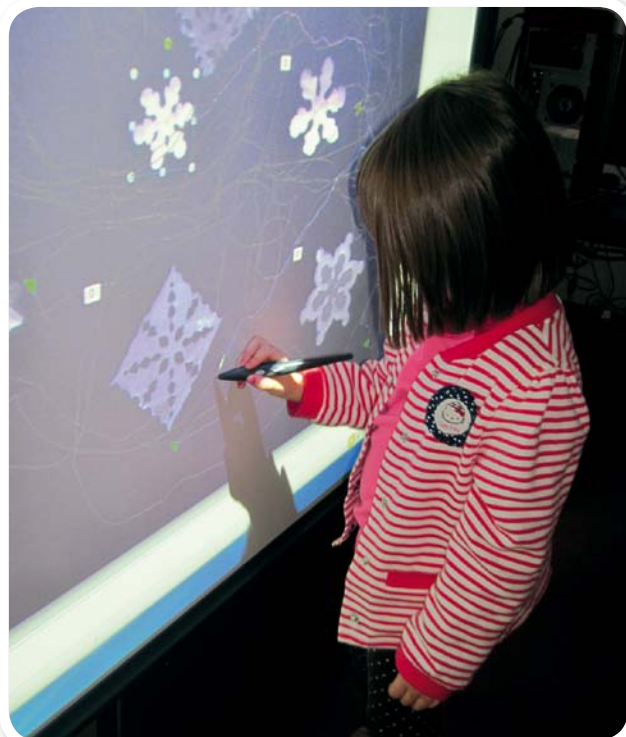
We also sang songs and rehearsed dances about winter and snow. Snowman and snowflake arts and crafts were made with different techniques.

We took pictures of the snowflakes the children had made and added them to a blue background on the computer.

The children draw a “route” for their snowflake with the Smart Board on the PowerPoint program. By “adding animation”, synchronising and playing with a loop it was a simple way to make an animation.

The snowfall animation was used as the background for musical performances by the children in the Christmas Party we had for the families.

When we went skating on an ice-skating ring nearby we had many “creative problems” to solve:



Making the snowfall animation

“How can I move on the ice?”, “What shapes do I see in the ice?” and “What kind of marks can I make on the ice?” The children of three to five years made ice-skating performances we filmed as well as the images they could find in the ice.

The ice-skating experience was also a topic for arts and crafts. The children had to figure out how to make patterns seen on the ice on paper using a candle or a marble.

The skater drawings were then scanned and added onto the Smart Board screen.

The children had the opportunity to choose a tune and make an ice-skating performance by “dancing” the skater on the screen to the music.

Next we started exploring and experimenting with the winter elements.

The one-and-two-year-olds painted on the snow. Then we made a whole bunch of coloured ice blocks by freezing watercolour-filled milk containers in the storage.

Of these icy blocks, the children built installations, took photographs and made up stories they filmed on video.

Next we made ice sculptures by arranging natural materials on water-filled sand moulds.

The sculptures were hung by string on the trees of the playground for (Shrove Tuesday) Winter Festival decorations.

The children were encouraged to ask questions about ice and snow.

For some of them we found answers from the internet.



Painting on the snow outdoors: exciting!



We found information from videos on YouTube and pictures in Wikipedia, chosen beforehand by the educator. The process of ice and snow melting was also studied through different senses.



*Making the ice art provoked many questions:
"How does the water turn into ice when it's cold?"*

REFLECTION

In the Snow and Ice Project, different activities, techniques and art forms gave the children opportunities for practising skills and learning.

Participation in a group or individually was encouraging for the social skills and the self-esteem of the children.

Self-expression, imagination and exploration were the key elements in the project.

The art, photographs, videos, animation, stories and questions of the children were documented on a video that was shared with the Creanet partners as well as the families.

*Anna Sipilä, kindergarten teacher,
Luhtaa Day Care Center, Tampere (Finland)*



Bottles of water, and leaves, and dirt, and...

6

A creative outdoor activity with children aged 0 to 3 years

» Trine Munkøe

We constantly find ourselves in time and space. Traditionally, we understand the physical spaces of the institutions as, e.g., the individual class or activity rooms, but the outdoor remains undefined with regards to new pedagogic applications and possibilities.

The outdoor space invites children and the professional grown up to experiment with materials, ideas and the social interaction.

In Scandinavia, we have a pedagogic educational tradition of using the many opportunities of the outdoor environment.

We develop our pedagogical thinking in outdoor space. Children nap in cribs outside, we have forest kindergartens, we go for walks in the nearby out-

door environment, and we constantly urge children to occupy the outdoors during their everyday lives in our nurseries and kindergartens.

This is partially rationalized in health perceptions, but at the same time, the outdoor introduces new ways of organizing and practicing creativity because

outdoor life is less limited and invites the participants to social interaction and participation.

The outdoor is raw and “dangerous” (wherefore a tradition of regulations aimed at the safety of children in institutions flourishes alongside of it), but the outdoor space is a space for experi-

menting with the conformity of materials – and to develop new understandings and purposes of the material.

I believe that outdoor space and environment represent the paramount conditions for creativity. Outdoor, the children are free to exercise their entire bodies without the restrictions associated with indoor activity. By facilitating creative activities and exercises outdoors, we respect the children’s senses and encourage sensuous experimentation and bodily realization. The outdoor is practical, and participatory environments are easily developed and expanded.

The absence of physical walls dividing individuals enables children, on their own or in the company of adults, to interact with others on the playground. Courage and zeal to seek out play with other children and adults grow in the spacious outdoors.





AIMS

Bottles. Lots of bottles. Small bottles and big bottles; all made of plastic. I put my thinking cap on. Bottles must be good for something on the playground – and why not something creative and fun?! Motor skills cannot be an obstacle, but it still has to be challenging for the eldest children.

Scissors cannot be involved as I want the children to be able to work independently.

The children should want to use the nature on the playground, and, most importantly, all children must be able to participate if they wish.

I try to think of simplicity, and then it happens. New water in old bottles – pure simplicity.

It is no new idea; others have done it before, but it is a good idea and I want to do it with the children in Storkereden. To them and to me it's a new experience. A known setting and a known material, but all in a new context.

THE PROCESS

The children help to clean the old bottles. They collaborate. We have a tap on the playground which makes it easy for everybody to join.

Afterwards, we fill a few bottles with water. The children lift the bottles that are now a bit heavier. It's a tough job for a nursery child. The sun is shining from a clear blue sky and the light is reflected beautifully through the water.

After the children have experimented lifting and looking, we open the lid of a bottle. It doesn't take long before the children stick their fingers into the bottle to feel the water, and suddenly a small piece of wood falls in. They examine it. Sensuously.

They contribute with ideas all the time. I try to catch the ideas of the children, and at the same time I am experimenting myself.

I am curious, too.



The lid comes back on and the bottle is turned upside down.

Now the children are excited. "It must come off again!" I screw the lid off again and the children eagerly bring new items to put in the bottle: rocks, dirt, leaves, etc.

A child walks off with his bottle to find peace and a quiet place to explore the bottle and to create a landscape within to admire.

The children help each other in problem solving,



they participate in a community feeling, but they get into arguments as well because it is difficult to put many items into the bottles at once, and who gets to put his or her item in first?

We discuss it and find a solution to the problem. They are all eager to solve the problem in the group.

The smallest children of seven months of age join in their own fashion: They roll the bottles, taste them, and watch the content.

They use their hands to feel the items they see in the bottle, and use their entire bodies to show their perplexity and excitement.

It's a great joy to watch each child's reaction.

The bottles are still on the playground and the content changes all the time.

Ultimately, it's difficult to see anything in the bottles due to all the mud, but if they feel like we will start all over again.

Outdoor environment just created a totally new room for experimentation, exploration and examination of the material and the symbolic languages – in togetherness.

SETTING

Storkereden is a Danish city nursery with approximately 28 children.

The institution's playground is not big but contains many areas to explore and it is thus important to develop new creative activities that innovate the use of the outdoor.

Trine Munkøe, Pedagogue (Denmark)



The big constructiveness space

A social context for creative learning

» *Cinzia Braglia*

The enhancement of play in each of its forms and expressions is a preschool educational priority, since play represents a privileged scope for the use of imagination and the development of creativity. From this point of view the attention paid to the organization of specific spaces where children can play is certainly a preschool qualifying feature. Besides specific spaces for symbolic play, movement play and board games, for some years in our school a particular attention has been paid to the creation of spaces where children can build with recycled materials.



AIMS

The aim is creating a playing space where children can build on a large scale both in terms of space

(larger than the one they have in the classrooms) and in terms of relationships and meeting opportunities with children (or pedagogues) of other classrooms.

Here the children can create a collective work over a period of one week in which everybody takes part, and which is constantly changing its shape, being adjusted, decorated, modified according to changing circumstances.

THE SPACE

Each classroom has a specific space for building with informal materials, but the children (aged four and five years) can also use a common space called “Big Constructiveness”.

This space measures 42 square metres; in the middle there is a non-removable platform with some big wooden bobbins which can be moved – this allows the children to build on different levels.

The space contains only garbage items (natural and non-natural) that are stored in transparent boxes, sorted according to different typologies, colours, shapes, material (plastic, cork, polyurethane) and dimensions.

There are no unique pieces but only series of equal objects, mainly components of more complex bodies.

There are both commonly used objects (different corks and buttons) and things with a “low cultural content” whose origins are difficult to define on





the spot. These objects are carefully organized and displayed so that the visual impact is appealing and tempting.

Children are free to decide and choose what to build and which materials to use; they can build something new or continue a building previously began by themselves or by other children.

The use of the space is regulated and generally there are small groups of maximum eight children.

Every morning three or four children out of the 4/5 year-old and the 5/6 year-old classrooms decide whether to go to the big constructiveness with a pedagogue.

The buildings realized in this space last a week: children start building on Mondays and they disassemble on Fridays, tidying up and dividing materials by typology; the destruction of buildings and rearranging of the objects at the end of the week is an integral part of this play: This prevents creating models to be imitated – it is not the object



that has to be preserved, but the process, the planning method, the modifiable experience ready to produce new variations according to arising problems (Munari, 1977).

ROLE OF THE PEDAGOGUE

The pedagogues have a supportive and stimulating role: They observe, document, analyze and discuss the building that is being realized during the constructive process and enriches the experience of children with a direct involvement (participating) and an indirect one (periodically substituting the available materials).



"It's a big city, it's Paris with streets to walk by, towers and bridges"

The pedagogue is the "playing trainer" who starts playing with three year-old children in the classroom building space which is full of informal materials. Only through practise and a long learning process children can become "expert builders".

Pedagogues use small technical devices, developed over the years, that are useful to improve the use of the big constructiveness space and the success of this play activity: for example they have put photos of the contents on the transparent boxes to facilitate rearranging objects; they have put small sheets on the completed buildings with names and words of the authors in order to reward collective work, to give it visibility and to stir further collaborations; and finally they change objects periodically to suggest new research processes.

Pedagogues document the activity on classroom diaries or they create presentation wall charts.



This documentation is then discussed in staff meetings and is used to create new stimuli for children.

REFLECTIONS

Children are committed to give a new life to objects, to invent structural formulas, to experience relationships between what they know and what they don't know yet. They get the chance to set in, to take part, to let imagination and creativeness act and, through discussion and cooperation with the others, to solve problems that arise, to verify the potency of a formal solution, to examine the various interpretations that come out from the research

group, to widen their knowledge, to improve their instruments and establish their own decisions in order to create something that really works. Finally they have the opportunity to deepen their knowledge (cognitive and relational) through play.

Looking at the activities in the Big Constructiveness space we see that it is here where every object can go beyond its origins and achieve new and different identities. This experience trains the imagination; the children learn to keep an eye on the many different meanings that an object, even the most common one, can have. It's a context where groups of children meet to use objects in an imaginative way through the exploration of the different visual and material identities.

Sara (4 years): *"There are cameras (two blue objects) because here there's a bank with money and nobody can take them... except when it opens. Here (white stripe) you must insert the keys to enter: you have to use the white ones if you want*

to go into the white cash dispenser, which gives you white money and you have to use the black keys if you want to go into the black cash dispenser, which gives you black money! Under there are bottles, half of them containing money and half of them containing water, water is useful if you are thirsty and money... is money!"

Rubbish items are the core of the activity, as thorough imagination and play they are re-created. Few elements are enough to build a situation in a symbolic way and to cast your mind into a new reality. Building with recycled materials makes children focus on the features of the material and to use it in a productive way.

The driving force is the interest for the object found: an object that before being picked up has no value (Munari, 1971), but afterwards can be re-observed because of its particular nature, its aesthetic beauty or its new functionality.

The common space gives richness to other groups of children: They share a physical space, thoughts, strategies and common plans. With different competences they search for agreements, they match and share small projects: the "Big constructiveness" space becomes therefore a privileged context of competence sharing. While building the children also create stories, the words giving a meaning to things that don't had one before, and linking what is abstract to something concrete.

The process lasts until the space is not used any more: building doesn't start from a rigid project and the final result it is only a passing moment in the life of each shape, deconstructed each Friday. A recycling process in a literal meaning which is not only a cyclic movement of materials, but also and above all a movement of ideas and inventions coordinated by an operative methodology.

Cinzia Braglia, Public preschool
in Scandiano (Italy)



"They are bottles full of caps, they are white, also water is white, so they are bottles full of water!"

Promoting creative activities

8

Ilze Abele, Nora Kirhnere

The concept “creativity” we understand as ability to see things around in the world in one’s own way – not guided by an experienced vision and a certain way of seeing the world. Being creative demands skills of flexible thinking, which is the basis of creative practices.

AIMS

- ◆ giving children freedom instead of pressuring activities according to our needs and desires;
- ◆ freeing children’s fantasy and imagination;
- ◆ encouraging their self-expression abilities;
- ◆ facilitating exploring materials and natural phenomena through games.

In order to encourage children’s positive thinking and desire for being active and creative it is important to respect their individuality and ensure possibilities of developing creative environment so they can discover the world with all senses, including heart and mind, in order to create their own fantasy world.

CREATIVE ACTIVITIES

Pedagogues encourage children to explore the world by using different activities.

The children work independently and each activity is free in terms of artistic activity.

They are encouraged to interpret, improvise and express themselves.

Children start to think that success is stronger than the fear of failure.

“The Clocks’ family”

Children play instruments while listening to the tale:

“Once upon a time there was a friendly and hardworking clock family. Daddy – slow and deliberately tick tacking time: ‘Bam, bam, bam!’ (knock with stick on cymbals) Mummy works in the kitchen all the time and cares for her family, her tick tacking is soft (imitate ticking on glockenspiel). The elder son has a very important task – he works as an alarm clock every morning (play guiro or use a real alarm clock). The younger son – a wristwatch – works fast and quietly (fast, silent knocks on small triangle or smallest plate of glockenspiel)”.

After the activity we discuss with the children, putting questions like “what will happen if this family don’t do their job anymore?” The children can also try to compose their own tales with different kind of sounds. The activity fosters the ability to focus, trains memory skills, imagination, creativity and the sense of rhythm at the same time.





"BEWITCHED IN SLEEP"

Before the game it is advisable to talk with children about animals and birds, how they move, sleep and eat.

When the music plays, all children "sleep" and the music pedagogue – a magician with a wishing rod – sings or declaims:

"Children sleep, children sleep, magic will happen, big magic.

Children wake up, wake up and change into..." (a rabbit, a bear, a fox, a cuckoo...)

Then children make animal sounds and movements and express the character of the animal.



"DRAW MUSIC!"

As music plays, everyone dances around the room. When the music stops, children reproduce the "musical character"

and their feelings on paper. When the music starts again (with a different kind of rhythm and character) the children start to dance again.

When the music stops for the second time (third, fourth time etc.) the children complement the drawings of their group mates.

After the game the children tell about their feelings expressed in the artworks.

"MUSICAL STATUES"

All children dance in a circle while music is playing; when the music stops children stand as still as statues for as long as music doesn't play.

The last child moving turns into a "little flower" and has to invent a short own song about flowers (he word "flower" can be changed into any other thing).



*Ilze Abele and Nora Kirhnere,
preschool teachers,
Christian Preschool of Liepaja (Latvia)*

Spiritual value education in preschool age

» Aušra Jablonskienė, Giedrė Petrošienė

9

AIM

- ◆ Developing children's social skills through different activities and communication ways.

ACTIVITIES

All children from the institution were involved in the project: 10 groups of children, in total 173 children from 2 years to 7 years. The children worked in their groups. Every group chose one their favourite values, but communicated with the other groups.

The pedagogues organized different activities and communicated with all members of the project; they documented and took pictures of the children's different experiences.

The children tried to express themselves using colours, hands and legs. While painting they tried various materials like ink, wax crayon and tiny sticks.

Children need a lot of patience when they are working. Painting took a lot of attention from the side of the children and made them very happy.

The children did several activities with different materials related to the theme of the project. Constructive activities are promoting children to be creative and to try to experiment with unknown as well as well known nature materials: Most of the material they had seen before, but in these activities they used them in a different way (pumpkin seeds, dried leaves, chestnuts, nutshells, different



kinds of food products, moss...) and it was very interesting for both children and educators because the children were very interested in the creation process.

Many discussions were organized with group's friends, with friends from other groups, with older children from the school and with educators about patience. In these discussions every child could talk freely, they could express their feelings, their minds and they listened to each other.

One group suggested to make a labyrinth from snow outside in the preschool's yard. The children shared the idea with the others and in the end all groups decided to cooperate for the labyrinth. The



children – with the help of the educators – built big labyrinths and then had the idea to colour the snow with different materials.

All families were invited to take a part in the spiritual values educating project and to come to see how children can participate and work in this project.

Family members came to the preschool to spend time with the children and had a look how the project is going.

Often family members helped the children to finish difficult details and did different kinds of activities with them.

The children made bread for their family members who came to a bread making activity. At first children heard about how to make bread and learnt about the products which are needed to bake bread.

Later they watched the process of bread making and mixed some of the ingredients. Afterwards the educator brought real bread and the children, together with the families, tasted it.

A visit in the school in the city was great for smaller children from the kindergarten: They received a lot of information about school; they saw all the school, the school kids showed their books and their works and the pedagogue told them how children have to behave in school. The visit was useful the children because they saw and heard that the patience is very necessary for them everywhere.

The educators wanted to promote children's communication with all groups of people and arranged a visit to a rest-home. Before the visit the children prepared paintings, dances and songs for the people in the rest-home and during the visit they showed everything they had prepared.



Visit to the Zoo near the city

SETTING

The project and children's work (workshops) were organized inside the preschool, "Aitvarelis" and in some places in the city of Klaipėda from January until December 2010.

Aušra Jablonskienė, Giedrė Petrošienė (Lithuania)

I am a creator – I can do

10

» Virginija Letukiene, Dagna Volkovaite, Renata Juodikaityte



"I have created a cheerfully smiling girl. She appears or comes only in spring. She brings joy and makes all the flowers blossom. Her name is Lemela. My work is the most beautiful. I want it to exist always, all the life"

AIMS

- ◆ Facilitating conditions for children to take part in creative activities.
- ◆ Creating various pictures, things or toys using natural materials.

THE PROCESS

Outdoors, we offered the children various natural things instead of toys. They were free to create, perform and play using it. A live process prevailed – here and now: All activity from the beginning



"I had an idea to make a tiny man using acorns, small sticks and leaves. His name is Acorn. He is happy and is going to his friends"

up to the end was an independent activity of the children with no interference of the pedagogue. The children were able to perfectly express their ideas while creating ornaments or pictures using flowers, leaves, sticks and so on.



"This is a paradise fish. It is swimming to the paradise city where there is enough water. On the way it'll meet its friends – other small fish. It will be fun"

Self-expression and creativity of the children was revealed in a short story creation: They picked up the objects and materials they needed and started to create pictures and ornaments and invented stories and fairytales.

Their need for self-expression was utterly satisfied and they developed their imagination, fantasy and also their colloquial language.

SETTING

The project was carried out in the preschool yard of the Preschool, "Puriena" in Klaipeda, during October 2012.

Material: Different natural objects and materials found outside the preschool territory.

Virginija Letukiene, Dagna Volkovaite, Renata Juodikaityte (Lithuania)

Here and there: the boomerang effect

» Ana Néné

11



This project started after my presence at the 2nd Creanet Conference in Lithuania. With my group of children, I did a project about that country and I showed them pictures of what I had seen.

AIMS

My role was:

- ◆ to motivate children to get in contact with different kinds of materials, especially with elements of nature;
- ◆ to encourage their creativity and free expression and
- ◆ to promote intergenerational sharing, taking advantage of the seniors' home in the same compound of our school.

THE PROCESS

During the project on Lithuania, children had contact and exploited the country natural materials which I brought home (pine cones). Then we went to the backyard of our school to collect other elements of nature (rocks, leaves, sticks, etc.). Here the adult gives the children the opportunity to meet different cultures and motivates them to experience new ingredients and experiment with them – different types of materials, mainly those found in outdoor spaces (elements of nature). Once we have gathered such outdoor substances, they were taken to the creative workshop



1. Picture made with natural elements and plastic expression materials

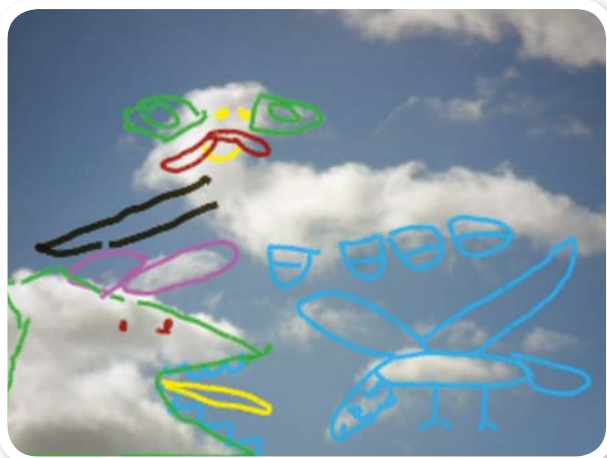
area in the “classroom” where children can create freely. Interesting results emerged from the junction between the materials found on the outside and those used for visual and plastic expression (picture 1).

After a first contact with the materials I found that children needed to explore outdoor spaces and to experiment, create and develop their creativity there. Having this in mind, I suggested a different set of activities.

The first activity was carried out in the City Park of Beja. Individually, children used the camera and photographed everything they wanted. Later on, in the all group meeting at the classroom, we chose



some of the photos taken. They were processed in Paint tool, using a computer with touch screen, and then children could express themselves creatively through a new language and show all their imagination to transform a photo (picture 2).



2. Photo re-created by a child in Paint using a tactile screen

In the second activity a group of children visited the seniors' home next door to share their knowledge about Paint with the elderly. Children's familiarity with the computer proved to be a very enriching and enthusiastic activity, both for children and for the elderly. The products of this activity were drawings created by the elderly in Paint tool. At the end, children described signs of happiness, emotion and enthusiasm because they were sharing and helping these people (picture 3).

The third activity consisted in the transfer of the project from indoors to the outdoor space. Some of the children worked on a project about Australia. After some research and discoveries made, we found that aborigines lived in Australia and then I threw a challenge to the group of children: Let's imagine that we are aborigines – and let's enjoy what nature gives us (outdoor space) for our con-



3. Children sharing their knowledge of the Paint tool

structions. The challenge was accepted enthusiastically by the (small) group of children and off we went outside. Different productions emerged, where creativity crossed with oral language and problem solving. One group created a short story through the combination of elements of nature



4. "Once upon a time there was a girl who stood at the door house and wanted to have a dinner with a friend. She lived in the woods, her house was square and had a square roof. There was a wolf in the forest and she ran home. After that, the girl and her friend went for a walk"



5. Building a boat

like stones, sticks and leaves (picture 4).

Another group built a boat and I registered the dialogue during the creative process (picture 5):

CHILD 1: "Let's make a bridge."

CHILD 2: "Let's put these sticks to make the bridge ... Don't handle because of the wind ... Let's make a boat!"

CHILD 1: "Let's put them on the floor to make the wooden part."

CHILD 2: "It's missing the sail. I'll find a stick and put them, because the sail it's like this."

ADULT: "And the sail?"

CHILD 1: "I know, I will get a leaf ... But we have no glue."

CHILD 2: "You want to see? We make a hole in the leaf and we put them. You see?"

ADULT: "Where is the boat?"

CHILD 1: "It's at the sea."

CHILD 2: "Look these are the waves."

CHILD 1: "The boat has also much fish that men caught. And there are sharks around."

Other groups created small constructions to which they gave meaning, putting their creation into context (picture 6).



6. "This is the Boomerang turtle that was in the Australian sea. She found seaweeds and small trees in the sea"

SETTING

The project was developed in the Patronato de Santo António, Beja, in June 2012 and continued during the school year of 2013. The role of the pedagogue was to help the children in the creative process, presenting new materials and proposing new challenges.

Ana Néné (Portugal)



12

(Re-) creating creativity

Exploring Materials – Recycling as a valuable educational resource

» Tânia Barriga

In the academic year 2011/2012, I came upon a group of 22 children of 3-4 years which was not slightly aware of the use of recycled materials as means of enriching their productions or give them a new use and a new life. The project was carried out in the “classroom” because I have a specific area there with such materials as plastics, paper, textiles, metals and card, and others, which seemed not be recognized by the group.

AIMS

The project focused on the improvement of environmental awareness by using recycled materials as a way to enrich children’s creations. The institution to which I belong is inscribed in the Eco-Schools project, so we try to motivate children and families for the collection of materials that can be reused.

THE PROCESS

Initially, we talked about environmental issues and explored recycling through games, visits, videos and productions made by other children. Also I put some materials available like glass, stack packages, milk card, roll of aluminium foil, and asked them what we could do with it.

What happened? Looks of... curiosity, some perplexity and questions: “*What is this for...?*” – “*What are we going to do...?*”

In the beginning, the ideas seemed not to flourish,

but after some insisting... losing fears... the fantasy and the adventure of imagining and creating suddenly inspired them and was the click for the different meanings attributed to the materials.

Several ideas emerged: a glass turned into a spider; the meat package into a boat; the spoon became the branch of a tree; the package of milk could be a car; a bottle of water looked like a giraffe’s body and the kitchen paper roll a scary snake.



The experiences started a creative process and it was up to the educator to find some strategies and dynamics that lead to effective activation of creativity. The permanent asking for the children’s opinions and suggestions were weaving ideas in a dialogue between the educator and the children:



ADULT: "And... now what do we do?"

CHILD: "We could do a story."

ADULT: "After the story created, what do we do?"

CHILD: "We can show our parents."

ADULT: "We show them on paper?"

CHILD: "No, we are going to build things for the story."

And so it was: The children built scenarios as well as the characters they had designed and made a story recorded on video.

One afternoon, in the large group, I decided to boost the space where the materials are kept and asked a child to seek for a material of her choice. Then I asked the group: "What is this?" – "Two tapes." – "And these tapes could be what?"

CHILD 2: "A road."

CHILD 3: "And the other could be a car."

CHILD 4: "Now, we are missing wheels. I'll get some caps that I saw."

ADULT: "Is there anything missing?"

CHILD 1: "It lacks the sky."

CHILD 3: "I will get it..."

ADULT: "Feathers?"

CHILD 1: "Yes, because the clouds are fluffy, now is done."

In another situation there was a child who went to get a piece of paper and without fear the children soon began to vent their imagination: "Looks like an elephant." – "No. A pitcher of water." – "Or a streak." – "A dinosaur." – "A fishing rod." – "A giraffe."

Another example came out of the story of Pinocchio, with the creation of their "liars' dolls" to whom something grew – hair, eyes, feet or legs.



"I am big eyes and when I tell lies my eyes grow"

REFLECTION

The situations show that in the simplicity it is possible to improve the fluidity of thought and, through free expression, to reach a higher level of elaboration and diversity in children's projects. The evaluation of the children was positive.



Nowadays they use more often these materials and the space where recycled material is available.

They started to make use of it and in addition to the decoration of their productions, they draw on existing materials to create new artefacts.

The role of the educator, besides organizing the space so the children could use a

*"I'm Henry and when I tell lies
my mouth grows"*

wider range of possibilities, was to provide moments of free and autonomous contact with different and multifunctional materials and to give priority to the use of recycled material in the creations of the group.

Constant asking, motivation and promotion of autonomy led to the creation of an environment conducive to the awakening of creativity and the development of curiosity, assuming the meaning of keywords such as: try, experiment, live and create.

SETTING

The project was developed from November to December 2011 in the Patronato de Santo António, Beja, and it is a work in progress.

Tânia Barriga (Portugal)

The “eaten tables” laboratory

» Katia Iotti, Silvia Cuoghi

13



This idea was born in a shared project done by all pedagogues from our preschool and from other school members. We thought about enlarging the section/classroom, using it as a “*laboratorio*”, a word born by a child’s idea, in order to discover, learn and experiment in an atelier that is constantly operative.

AIMS

- ◆ Fostering creativity as a resource for the child’s development – creativity becomes knowledge and joy of discovery;
- ◆ Increasing the creative thought development of the children, the whole group and the pedagogues by seeing, hearing, talking and experimenting.

THE LABORATORY

Our school has an atelier and an *atelierista*, but in this project we gave to the children the opportunity not only to explore and to work with ideas and materials in specific moments, but we motivated them to use the atelier daily. In this way it remained a big resource for the activities, but the method used in it was part of the annual project in daily routines.

The classroom with its spaces and corners became a permanent laboratory: The tables were used for several activities, and these activities left traces

of what has been done, of the mental and formal processes that have crossed the minds (and the hands) during the whole day.

Leaving the activity tables like that also during the following days, the children had to reinvent the usual spaces: If the tables were occupied they had to find solutions for their different wishes, for example sitting on the floor for drawing or using games and materials on unusual furniture.

Like this, we thought both time and space stimulated the children.

The laboratory idea started from informal material and tools already known and used by the children which were placed at their sight. This material could be used not only in structured activities, but also during free activities and play.



“More and more kisses...”



But the permanent laboratory was understood not only in the use of materials and spaces, but also as a mental process, a way of thinking and working for both children and pedagogues. Children could observe, elaborate theories and share ways of thinking in order to cooperate in the creation of shared creative projects. They were free to choose what to use in order to give shape to their thoughts.

Very important was the “doing space”: The classroom space was made modifiable so children and pedagogues could change it according to the activities or experiences. It could become an open space in order to let the children lay down in the dark to experience the sensation of being under a night sky; to give shape to the ideas coming from imagination and fantasy. The space becomes a storyteller itself, telling what has happened, what children have done and what they have chosen to do to reach their aim. The space also collected old memories: Documentation left traces of the lived experiences and could be used as an input for the following activities.

Permanent laboratory includes all types of activities – from the most structured to free play. In free play children can use different materials to be creative in self-expression: Like in “more and more kisses” where a girl made kisses using seeds; the association of materials is an important expression of the union between imaginative thought, a creative modality and logic ability.

THE ROLE OF THE PEDAGOGUE

We worked on the method of the permanent laboratory as a school; all pedagogues have been involved. The adult was important for promoting and leading active environment exploration, acting as a helper for the cognitive and affective processes. He has an important role in propos-

ing activities – activities that are always studied in advance but can be modified depending on the interest of the children: The pedagogue gets involved in children’s proposals.

Still, facilitating material and instruments to the children is important; the material must be known by the children in order to stimulate their creativity.

LIGHT

The pedagogues talked with the children also about difficult topics such as the biblical creation, facing the light and stars theme: We used a torch and a colander to stimulate the children’s senses and to make them imagine those first moments while lying in the dark.



The children, after the guided activity, could use the torch and other material of the activity themselves. They experimented and played, exploring the materials’ permeability and transparency as well as different light sources.

After these experiences with light the children found other ways to reproduce sunlight and starlight, using different kinds of paper on the light table. Thanks to known tools and materials children



"And this? Is it a spaceman?"

"Noooo... it's a man lying who looks to the stars!"



"In that way you can make sun and stars..."

can give new meanings to the experience, they can experiment with them independently and in new ways, depending on their intentions, beyond mental schemes and conventional rules.

"EATEN TABLES"

Permanent laboratory is a constant occasion to improve creativity that becomes documentation of the experience: What children do remains in the classroom in documentation panels to fix their experience.

Inside the "*laboratorio*" concept it is important to



"Look, I've made a galaxy... I've made all the stars with holes... than I put them together!"



After a first period with worked tables we presented the work of Daniel Spoerri to the children of 4 and 5 years. Spoerri is an artist that in one period glued daily objects on tables which turned into a strange shape when turning them from horizontal to vertical (Eat Art, The lunch collections, The eaten tables...).

The artist, after sharing a meal with friends, glued on the table the table cloth, cutlery, glasses, leftovers and everything the guests had left on the table, thus keeping traces and memory of what had happened during the meal.

All these works became for us not only a path to follow in our activities with the children, but also the excuse, the artistic legitimacy to do things "out of the box", distorting perspectives by decontextualizing reality. Spoerri declared: *"I just put some glue on the objects, I am not creative!"* But as pedagogues we saw the opportunity to change completely our normal habits, assembling objects, imagining, building, reorganizing and fixing experiences in a creative permanent documentation.

The children were inspired by the possibility to change their routines: *"How beautiful is it, why don't we do it as well? So when we celebrate the monthly birthday we glue everything, so we can have memory of the party!"* but also *"I don't tell this to mummy, she doesn't want, maybe we do it only in school, at home I glue plastic dishes", "my mummy is happier when children's hands are cleaned, but the children are more happy when their hands are dirty!"*


It was easier than expected: Our idea was to celebrate the birthday of the month "in Spoerri style", using table cloth, napkins, balloons and other things to decorate the table to create a joyful context that could remain as a memory of the happening. At the end of the celebration children's enthusiasm was still alive and even increasing because they knew they'd have the opportunity to glue the dishes, wrapping papers, balloons, leftovers, candies and bottles. leaving everything like it was during the party, a memory of the shared joyful moment.

We left our "Spoerri table cloth" intentionally on the table for some days so the children could live again the different steps: before, during and after the party.

Talking with the children about the different experience moments of the permanent laboratory we finally decided to call it a *table to work* with materials, instruments and stimulations, *working table*, when children can make experimentation, discovery and experiences, and *worked table*, the table after the activity with the trace of the experiences and memories of children's mental processes.

The innovation with the children was to let them build their personal "eaten table" using non-conventional and structured recycled materials, but also natural ones.

The tables were set with placemats and several materials and the children created their personal



lunch. It had become natural for the children to give a new meaning to non-conventional materials. They used yellow stripes of tissue as pasta, light blue paper in a glass as water or red as wine. One child glued the glass lying on the table and created the water coming out with blue paper. In the same way the children used natural materials like shells as seafood remains or pine cones as decoration.

The pedagogue rule was mainly to let the children work independently and to elaborate their own ideas without any already done model.

This involved different mental processes for the children: to imagine a lunch and what could happen there; to give meaning to materials which is

a big creative job that became part of our permanent laboratory.

Inside the “permanent laboratory” children can imagine connections, build up objects and ideas, reorganize and fix experiences in a permanent documentation seen as an incentive for creativity. Creativity became for us a “diverge thought”, something able to break the experience schemes: A creative mind is always at work, it always puts questions beyond conformism, it is able to join ideas, impulse and experience in new and positive associations. It is necessary to offer children new opportunities without a clear objective in order to give them high quality occasions without stereotypes or banal results. This will be our big challenge for the future.

SETTING

The project took place in the private preschool “Sebastiano Corradi” in Scandiano in 2011-2012 and is going to become a new method for the school. The experience has been positive especially for the involvement of the children and the professional experience of the pedagogues.

*Katia Iotti, school coordinator and teacher,
pedagogical coordinator in FISM Reggio Emilia,
Silvia Cuoghi, school teacher and pedagogical
coordinator in FISM Reggio Emilia (Italy)*





Feel and express!

» Jana Grava, Vineta Pole

Being creative means to be open to new information and surprises as well as to focus on processes rather than on outcomes; processes where children should have an opportunity of free choice and the possibility to develop their creative potential. Outdoor activities, such as drawing in sand and on asphalt, modelling with nature materials, and listening to the sounds of nature are of great importance.

During these activities the five year old children experimented with expressive languages that are the basis of meaningful learning.

AIMS

- ◆ Listening to the sounds of nature outdoors in a meadow, imagining what we hear and expressing it;
- ◆ promoting children's practical skills and creative abilities through nature and sounds.

ACTIVITIES

Practical activities were planned and carried out in the park by the sea in the afternoons.

Children were working alone, in pairs and in groups with a common task – to listen, imagine and visualize what they heard, thus promoting independence, curiosity, self-expression and self-esteem.

Then a plot of what had been heard was reflect-



"We listen and touch and smell..."

ed by using natural materials – dandelions, leaves, sand, etc.

The pedagogues' role was an observer, a documenter, a film recorder, a photographer, and – if necessary – an assistant to the children.

CONCLUSIONS

It is important to accept that expression of creativity is unique to each child – there are no emotions and ways of self-expression that are completely the same. Children learn and develop their creative abilities using all the senses – hearing, vision, smell, movement and touch. Also the social interactions have been improved. The project activities resulted in promoting:

- ◆ independence – by expressing ones ideas and feelings and respecting others when they do so;



- ◆ curiosity – by pedagogues’s ability to motivate and encourage children, knowing how to propose ideas that inspire children to experiment and explore;
- ◆ self-expression – by giving children the opportunity to choose. Pedagogues should be flexible and willing to make changes in their own lesson plans according to the needs and wishes of children;
- ◆ self-esteem – by presenting creations and achievements (artwork, music, etc.) to others – other children, pedagogues, parents; it boosts self-esteem of children when their work is being appreciated.

SETTING

The activities of the Christian Preschool of Liepaja, Liepaja University, took place between 1st and 15th of May 2012 in a preschool setting and in a park by the sea.

Materials: various natural materials (grass, stones, flowers, leaves and sound) for self-expressive activities.

Jana Grava, director of the study

programme preschool teacher”

Vineta Pole, preschool teacher (Latvia)



A hedge-hog on the walk



The road



Co-creators



15

The very hungry caterpillar

» Susanne Bayer-Mielich



Based on the picture book “The very hungry caterpillar” by Eric Carle we developed this project especially for our “English lessons”; it lasted from April until May 2012.

AIMS

- ◆ The children learn English at the Kindergarten; they have fun with new words and the pictures they see inside the picture book;
- ◆ the children learn creatively about the circle of life (from caterpillar to butterfly).

THE PROCESS

The children found a caterpillar outside our kindergarten; they examined it and started to ask questions, so we ped-

agogues took up the subject. We involved not only basic information, but we developed various approaches: through literature about butterflies and caterpillars, through music and songs, through painting and also through body movements.. We also used different languages (English and German) by introducing the picture book by Eric Carle in both languages.

It is a story about the caterpillar and the children can see in the picture book all about his week, what he does and what he eats.

First, the children listened to the story and looked at the pictures in the book.

Afterwards some of them started to play the story by themselves with chiffons, being a butterfly after the metamorphosis.





Others played music with a self-made butterfly with bells on it.

They touched the paper from the book to feel the holes inside the pages.

The children also thought about doing something with colours and so they folded a paper with the colour still wet – and out came a butterfly.

After that the kids wanted to know more about caterpillars and butterflies. So we looked in other books to learn more about them.

The children learned a lot about fruits, food, weekdays, numbers and other basic words of the English language.

*Susanne Bayer-Mielich, Kindergarten
Rappelkiste, Keltern-Ellmendingen
(Germany)*





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Community project for our city's 760th birthday

» Aušra Jablonskienė, Giedrė Petrošienė



The idea of this project came from our city's celebration: In 2012 Klaipėda celebrated its 760th birthday.

For us it is very important that our children will be interested in our city's history, traditions, the most important places and objects. Klaipėda is a city close to the sea so we decided to organize a nice project related to our city and the sea.

AIMS

- ◆ Educating children's sense of citizenship;
- ◆ giving children information about the city's history;

- ◆ improving love and respect for the native town Klaipėda and for the Baltic Sea;
- ◆ evoking positive emotions in the children;
- ◆ giving children the possibility to create and to improve their creative skills.

STEPS

As a first step the children created institutions and environment following the project theme. During this creative process they improved their creative skills. We found out that they tried novelties through new techniques, using natural materials, sheets of clothing, recycled materials, napkins. We awoke children's inventiveness in decorating walls with nautical fragments, using paper, plastic bags,



sponges, net, and in making a ship on the wall using net, wood, wires, sheet of clothes and paper elements.

Then we organized excursions in the city and near the sea. In this step the children explored the town by following pictures. The children tried to find some of the places and visited our Baltic Sea.

The third step was a creative laboratory which



was a new experience for all who were involved in the project. For the first time we tried this type of activity in the community's project. During the creative laboratory we used recycled materials to create future's dream town and we didn't forget to find out keywords related to this activity (inven-

tiveness, risk, curiosity, self-expression and self-esteem, novelty).

After the construction of the dream city Klaipeda, the city's analyst invited the children to go for a walk around the city and to leave their footprints in it. They were proud of their constructed city, shouted the city's name and sang songs about Klaipeda.

In a fifth step the children presented the future TV show "Striped people". During this TV show they gave information about the Klaipeda celebration, about the means of transport that will be, what kind of food they will prepare and more.

As the final step we put together an exhibition of photos which gave a lot of joy for all our institution's members and visitors, because in this exhibition we put a lot of pictures from all our project's steps.

SETTING

The project took place in the Preschool "Aitvarelis" in Klaipeda from May until October 2012. It involved all children, parents, educators from our kindergarten and all institution's staff.

The project's and children's work (workshops) were organized inside of the institution and in some places around the city.

Aušra Jablonskienė, Giedrė Petrošienė (Lithuania).



17

The meeting with artwork as a pre-text

» Vesna Balzani



In this project we tried to associate different languages and symbolic codes by children and to explore and experiment with different spaces and materials.

AIMS

- ◆ Seeking in the languages and models of art for the intellectual, imaginative and creative processes that can provide the materials and patterns of observation for the world around us;
- ◆ establishing an interaction between arts (at the museum), science (at school, in the garden) and literature (at the library) in order to outline teaching activities aimed at fostering a conscious behaviour and a greater attention to the environment;
- ◆ favouring the relationship between school, museum and library within a unique training project leading to the full development of the personality of the participants.

THE PROCESS

The educational path offered by the Atelier “Come Ti di Luna” to the 5 year old children of the kindergarten aims to work with the exhibition “Fiori, natura e simbolo dal Seicento a Van Gogh” (Flowers, nature and symbol from the seventeenth century to Van Gogh) at the San Domenico Museum in Forlì. The training proposal wanted to favour

the relationship between school and museum and considered languages and art models as intuitive, imaginative and creative processes able to procure materials and models for the observation of the surrounding world.

The activity children were practicing at the museum was, indeed, the beginning of a research which, after being enriched by the activity carried out at school, wants to highlight the idea of an integrated training system. This system tries to delete the episodic nature of the museum experience in behalf of the realisation of a single project which aims to develop the personality of the attendees.

Different training models of the territory weave together in this project: The subject of the exhibition becomes a pre-text to suggest an educative path in which the emotional and evocative aspect of the art is the main tool to look what is surrounding us. Art, science and literature communicate together when drawing didactic activities aimed to promote a greater attention and responsible behaviours toward the environment. The project is divided in three paths, carried out in different places.

BEAUTIFUL BLOSSOMS

At the museum, a walk through the exhibition allowed the children to admire the different interpretations of the floral world that artists had cre-



ated over time. After the visit, there were spaces dedicated to two different experiences: During a laboratory the children – like young botanists – discovered the flowers by observing petals, leaves, bulbs and small seeds. From this observation derived the creation of a fantastic collective herbarium.

In another space the class was committed to represent, through the watercolor technique, shapes and colours of beautiful seasonal flowers.



A PLANT AS A FRIEND

At the school the project involved the children in the observation and the care of their own plant which is growing in the school garden; an emotional involvement that will disclose to them the stages of the botanic transformation and will help them to understand the respect for the environment.

Every child had a small kit with the necessary material to follow the stages of the growth of the plant: to draw, to take pictures of the changing, to collect data and measures, to give it a name, to celebrate its birthday, to build useful accessories to make its life pleasant. Each child created the “box of memory” with the memories of his or her plant.

AN HERBARIUM TO SHARE

Also at the school, every child discovered the garden of the school, the plants and the trees. Together they realised a collective herbarium that collects and analyses every natural thing present in the garden of the school ... an inventory that comes from a multi-sensorial experience and makes visible things that are often hidden from the usual use of that place. Drawings, dried flowers compositions, photos, small specimens glued, form the materials collected in the notebooks that report the story of a place of our everyday life.





GREEN PAGES

At the library, a bibliographic research of books which describe to children the colourful nature world helped the pedagogues and the artists to create a small shelf of reference for the activities



to carry out with the kids. With the librarians the children read “Il medico Me Di Cin” written by Roberto Piumini. After a direct experience, refining tactile and olfactory sensation, they invented and presented flowers and herbs through the experience of painting and gave them a name and a thaumaturgy power (Thousandfruit for the cough, Save-everything herb...).

SETTING

The project took place in the kindergarten “Angeletti”, in the school (atelier, classroom, garden), in the library and in the museum in Forlì during one academic year.



Materials: plants, flowers, seeds, bulbs, water, soil, lens, watercolour pan paints, salvaged materials, books and artworks.

Educational strategies: observation, experimentation, dialogue and confrontation, problem solving and waiting.

*Vesna Balzani, pedagogue,
PR17fig01Centro famiglie, Forlì (Italy)*

Movie Makers and the City of Friends

» Sandra Reigado

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In the context of a preschool, creativity knocks at our door every day ... but not always we let it in. This project made the new technologies available in the “classroom” (computer, digital table, photo camera, video camera...) at the service of children’s creativity which helped to better understand their potential at this level.

THE PROCESS

Regarding the making-of process of the film “City of Friends”, it became a great project that was developed under the theme “the evolution of media from primitive times to today”. Thus children were very motivated to explore the technologies which they are in contact with every day.

Regularly, in the “classroom”, children had explored already technological equipment like amera, computer, digital table, video camera, printer, scanner, CD player and others, according to their interests and needs. Such experimentation came out in articulation with several undergoing projects developed with the group.

The video camera was the least used, both in time and potential, so it was the main reason to address it more specifically and the attitude of the educator was to suggest the sharper and focused exploitation of this resource as a tool for audiovisual record.

The dynamics of the project, at an early stage, demanded a free experimentation in order to give

children the opportunity to choose the most interesting visual points and allow them to do their filming spontaneously.

During the making of these filming situations it was evident children’s curiosity in exploring the innovative equipment and they made comments illustrative of the pleasure they felt: *“I enjoyed shooting my... look... it’s very fun”* (Leonor, 4 years). The recordings were made in three distinct ways: by children individually, in small groups in the case of those who did not mastered yet the technique or with the support of the adult when they asked for it.

At this stage of the operation with the equipment the adult only guided its careful handling to the point of older children assimilated the necessary care strategies and from there, they themselves supported each other.

Interaction moment during the filming process





Thus, throughout this period of free recordings, it is important to emphasize the moments of social interaction, spirit of cooperation and mutual aid among children, because those who dominated and enjoyed the equipment's potential supported others who were willing to shoot but still needed some help.

Furthermore, it was possible to observe preferences among children in relational and affection terms.

What concerns the places allocated to filming a wide range of opportunities was provided in various contexts, both indoor and outdoor (room, garden, playground...).

Though the free exploration of the video camera should have been more extensive, at a certain point I felt it necessary to invite a specialist who could offer children different perspectives of making the most use of the equipment, appropriating techniques to their focus of shooting.

From the free filming to the creation of a collective movie it was just one step: The idea of creating a film was decided within the whole group and with children's ideas made possible to define the elements that would be part of the scenario, as

well as the characters and the techniques used to achieve the necessary resources.

While shooting freely and simultaneously more oriented scenes in accordance with the purpose of enriching the project, several tasks were carried out for drafting the scenario and its elements to create the story.

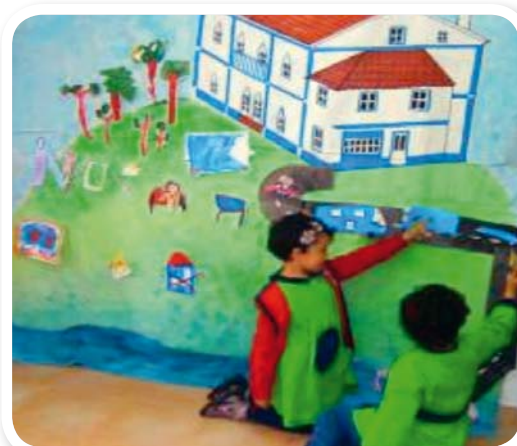
At this level the children had the opportunity to explore different ways to express themselves artistically: traditional drawing, digital drawing on the table and / or computer and painting.

After preparing all the elements defined by the group, the video recordings started showing the free exploration of the movie setting in which the children moved their characters in the scenario, interacted spontaneously and created free dialogues without any intervention of the educator.


However, while moving their character in various spaces defined in the scenario, the children had problems staying away and during the recording of images they obstructed capturing images of those characters (figure drawings). This difficulty had to be overcome using another strategy that demanded children to give voice to a character that could move in space without the direct movement of the child.



Character design in a digital format



Free creation of actions and dialogues



The change in strategy required children to express themselves so they would give life to the figure they had made without having physical contact with it.

During the individual or pairs' exploration they performed themselves freely through dialogues and representation of situations that (re)created the context in which they were inserted (kindergarten, playground, river, in the gym...).

The free talks among children showed their ability to improvise, inventing solutions to continue the situation which were created.

In the final edition of the project there was a compilation of children's individual productions in order to write a story linking the various ways of their expressions (oral language, graphical representation, body expression and film scenes). The crossing of the various languages that children could explore in this project was an asset in discovering how creativity can be valued in the daily practice of the kindergarten.

Sandra Reigado, Jardim de Infância Nossa Senhora da Piedade, Odemira (Portugal)





Museum

» Oriella Orlic, Ilenia Tikel, Sandra Urbanek



This project was inspired by a random discovery of a mysterious item, found during a walk by the sea – a piece of an amphora from the Roman Empire.

After we had found out what the item was, first we organized a visit to the museum where the children met for the first time with a variety of museums. This visit set in motion a lot of creative activities through various expressive areas.



THE PROCESS

The project participants were divided in groups with a total of 18 children, aged between 4 and 7 years. Activities were conducted in different places and in different conditions, such as the old abandoned school, different parks, outdoor and indoor places in the kindergarten, in the old Romanesque house and in several different museums (folk museum, local history museum where they were exposed to the Roman and Egyptian culture).

Before we went to the museums we watched the cartoon “Asterix, Obelix and Cleopatra”, looked picture books and did the didactic game “Labyrinth” and the social game “The lost treasures of Egypt”. We also used various colouring books for children and listened to folk music from Egypt. We visited various excavations in the surrounding area, for example the discovery of the remains of

a mosaic which is more than a few thousand years old. We played being archaeologists in those moments and used the found items to express creatively. We tried to document all these activities with photos, videos and children’s maps. The project also included the parents who were of great assistance to collect miscellaneous literature, newspaper articles, etc. stored in our kindergarten.

The first ideas children had: Let’s make the things that we saw on our own, collect a variety of waste materials, bottles of plaster, panels, boxes, canvases... Seek the right place to set up museums (“Teacher, the house must be very old because that is a museum!”). Children met for the first time new materials and their characteristics, dangers and first failures, and tried to use them; the first work on the mosaics made of plaster broke.



Artistic expression at the museum floor

Lorenzo, 4 years: *"We went with the van to the museum, inside the glass I saw a small child in his bed and it looked black and crushed (it was a mummy). I saw a hawk and a cat, two cows, a lot of wolves. There were birds, seagulls, sea shells. When we got inside, I saw two stones. It was very dark, so I said to the teacher: Buuuu! We draw on paper and that was enough! We went back to the kindergarten."*



After visiting the Museum, children started to bring things from home while other items were made in the kindergarten.

Children came up with the idea to create their own museum: They created items for their muse-

um like old Roman tunics, amphoras, ancient Roman and Egyptian jewellery, mosaics, amulets, old tools, old keys, sarcophagi, Roman sandals.

They collected old money, wrote with hieroglyphs, created their own music with ancient instruments and prepared food according to old recipes.

The end of the project was marked by opening their own museum in an old abandoned school and it was celebrated as a final event for parents and other guests.

REFLECTION

With this project, children have touched history as a completely new area for their age. Children experimented with materials that they saw for the first time (cement, tiles, natural colours made by crushing vegetables, various herbs). Through the game, using the language of art (singing, painting, modelling, body movement, exploring) they created the world in their own unique way. Using the language of art children were inspired by a small, for us an insignificant item and they created its history.

*Oriella Orlic, Ilenia Tikel and Sandra Urbanek,
Kindergarten Kalimero, Brtonigla (Croatia)*



Creativity and Technology in preschool

» Preschools Silverdansen and Vikbolandets (Sweden)



Silverdansen's preschool is located in a multicultural residential area in the outskirts of Norrköping. The preschool has 12 units with 200 children between 1 and 5 years, 40 pedagogues plus one preschool manager. The children and their families talk in about 15 different languages.

Vikbolandets preschools are located in the countryside in the outskirts of Norrköping, consisting of four preschools with 350 children in total, age 1 to 5 years, 65 pedagogues and two preschool managers, and one family centre for parents and their children.

Both Silverdansen and Vikbolandets preschools have consciously focused on technology for the last years: It started with cameras and computers; since last year there are iPads, too. The technology is used both as a tool for the pedagogues in their work (reflection and documentation) and in the daily educational work together with the children. We think that every pedagogue should have an iPad.

TECHNOLOGY AND MEDIA AS A TOOL FOR PARTICIPATION AND INFLUENCE

In the educational work together with the children computer, camera and iPad are a great addition to our traditional preschool pedagogy. The technology attracts both exploration of the technology and the search for different information. Together with the children we have used cameras and computers for many years searching for information

when something has awoken children's curiosity. Now with iPads we can sit down and search for information right where we are and when they want to know something, for example when they see a butterfly in the woods and want to learn more about it. It is a technology that is easy to use for children – their self-esteem grows when they have the ability to try by themselves and feel that they manage.

When children work with the iPad, we can see communication and collaboration between them. They learn from each other, help each other and together with the other children and the pedagogues there are many opportunities for reflection about the program. There are many different programs that stimulate and develop the various ob-



jectives we have in our curriculum for preschool – language, mathematics, science, technology, expressive language, play, cooperation and helpfulness.

Children's participation and influence over their documentation has become easier with this new technology. With the iPad we can sit down directly with the children and create documents with image and text when they have done something they want to save into their documentation or show parents on Facebook – an opportunity for them to express themselves. We can, in an easy way, look back to things we did and reflect together about that – because everything is stored and available in the iPad.

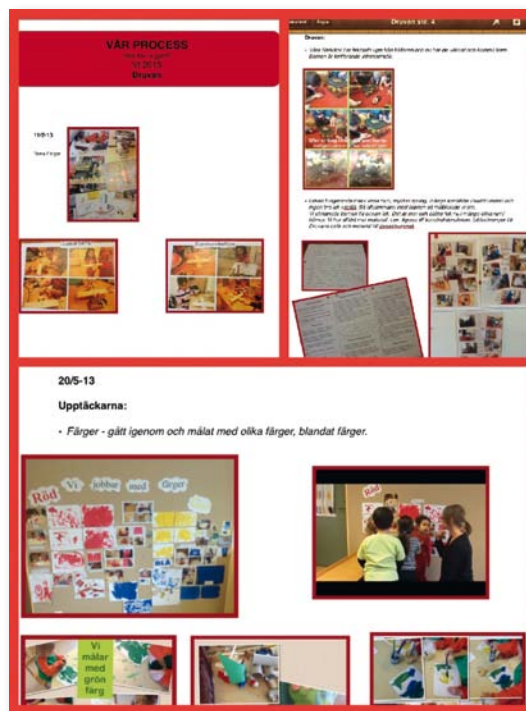
With computers, cameras and now iPads we have found ways to reach out to parents in different ways, for example by using Facebook where we can give them insight into children's days with us at the preschool, thus increasing parental involvement.

IT TECHNOLOGY AS A TOOL FOR CREATIVE DOCUMENTATION

The iPads give us the opportunity to take photos, record film and write in order to document our educational activities. When we are filming scenes from everyday life we get a basis for reflection together with the colleagues. We get views on children's interests and learning in different situations. That helps us to see how we can build on children's interests and skills.

Six times a year, every team sits down and reflects with the preschool manager (and a pedagogue documenting) about the educational activities – goals, processes, results and analysis. We use iPads to show pictures and videos as basis for these reflections.

The documentations from these reflections are



published to the parents so they can monitor our work.

The iPad has proven to be a tool that is easy to use for both children and pedagogues – easier than a computer. We hope it will lead us to develop our documentation even more with the children and our colleagues.

IPAD AND THE KEYWORD FOR CREATIVITY

When we started to work with iPads one and a half years ago, it was new for most of the children and pedagogues. We both were on the same level and together we have explored the new tool – even if the kids are faster than us in many parts. Many of the programs require a great inventiveness to get ahead and there are kids way ahead of us and can learn the pedagogues.

IPad arouses curiosity and desires to learn more,



both in children and adults. Now when we use the iPad and begin to feel comfortable with the technology, we see more and more opportunities both as a documentation tool but also as a teaching tool. The documentation gives both pedagogues and children opportunity to express themselves. It is a great challenge for us as pedagogues to develop the children's participation and influence even more with the help of this tool.

The biggest risk is probably in the minds of us pedagogues – because we do not think we can. We try to educate each other – learn from each other – and on the way to become comfortable with the new technology. We have already come a long way in the use and we can see that both children and staff have increased self-esteem and independence in terms of technical tools.

SCIENCE AND TECHNOLOGY

In our preschools we have science/technology pilots. They train in different areas – air, water, sound, light, etc. – in order to be able to educate all pedagogues.

They help to produce various materials found in preschools. Curiosity, imagination, the ability to

express oneself, to take some risk, are important parts of the work with science/technology. There is a lot of creativity in the work of science/technology at preschool.



Conditions for children's and adults' learning in preschools

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» Preschools Svanen and Nyckelpigan (Sweden)



Being a co-constructor of learning gives children a possibility to experiment from their own and other people's thoughts, questions, discoveries, ideas and hypotheses. It helps children and pedagogues not to assume any commonly accepted knowledge, but raises different aspects in order to point out that diversity enriches everyone's learning. Only then will the 100 languages and an abundant offering of materials be a meaningful work.

The selected materials and challenges inspire an expanded everyday learning. Pedagogues should add what children cannot find out themselves. Challenges that invite ingenuity, peevs and irritations are pleasurable. This requires attentive and active pedagogues and children. Everybody should take part in a dialogue and reflect on thoughts, theories and different aspects that exist. One should start from where the children already

are – right in the middle – in order to widen and deepen knowledge. Staying in the middle of the ongoing processes in order to discover what is in between and close by. Learning must start from both children and grown-ups: a pleasurable learning with mutual relationships and dependencies on other people and the material world around us. Learning does not originate from what is predetermined but from pedagogical documentation and reflection where challenges are faced and a deepening of knowledge occurs. An important angle is to make use of the children's creativity and find small changes that push the processes forward. The activity should provide children with tools with which they can communicate their different hypothesises – only then will the 100 languages be important. Not only does the spoken language have a value, but making children aware



of and helping them find many other different languages with which to communicate, participate and share with others.

A requirement for all that is to create a learning and permissive organization in preschool which works to promote development for both children and educators. It is important that...

- ◆ the organization offers quality services and gives time for reflection;
- ◆ the organization provides opportunities for a reflective culture, including regular reflection for all teams along with ateljerista, pedagogista and gender equality specialist, starting with the pedagogical documentation;
- ◆ pedagogues can meet for “idea workshops” – a forum of joyful learning, led by ateljerista/pedagogista.

Both our units, Nyckelpigan and Svanen, have established “quality services”.

Their task is to guide, inspire, act as knowledge developers and reflection guides; to foster a reflective culture and work on, -fundamental values, provide opportunities for enhanced learning and a broad aesthetic based on the curriculum.

The role of quality services involves also being “devil’s advocate” and challenging pedagogical theory and practice, either with one teacher or in different peer constellations, thus challenging and providing the prerequisites for a common investigative and a questioning approach.

THE ATELJERISTA/PEDAGOGISTA

He/she performs the function of the leader of the Idea Workshop, our pedagogical forum for common reflections, and links various learning processes involving the children.

The ateljerista creates meaningful contexts and permeates curriculum work, Reggio Emilia inspired work/cross-subject overviews and works with the 100 languages.

The pedagogista cooperates with others in the organization within the work and development areas of the pedagogical environment, material and creativity, salutogenic approaches, a child perspective that sees children as competent, learning beings and pedagogical documentation.

The Ateljerista creates opportunities for the children to use their different modes of expression and provides conditions for the teachers to use materials and different techniques to stimulate children’s learning.

GENDER EQUALITY SPECIALIST

To work with a gender perspective is not anything we in Sweden can choose: It is stipulated in all municipal and national policies.


In Sweden we have a National Curriculum for the preschool which stipulates that we should work with democracy, fundamental values and gender (among many other subjects).

The first chapter is called “Fundamental values and tasks for the preschool” and the very first sentence is: “Democracy forms the foundation of the preschool”.

Our preschools rest on the foundations of democracy, and therefore it is very important for us to work with the fundamental values.

We work to promote and foster in the long-term, to give the children the prerequisites to grow in confidence and equality.

To emphasize fundamental values, democracy,



equality and a norm-critical approach in all work, “gender equality specialists” are involved in several groups at the organization such as the management team and child health.

To work as a gender equality specialist means to keep democracy and civic values alive in the preschool. In order to work professionally with gender equality we need more research in different areas, more knowledge of community values and more knowledge of ourselves and our (often unconscious) values.

Much of gender equality work is about guidance and pedagogue-training, observation, discussion, analyses and reflection.

THE CREATIVE CENTRE

The Svanen preschool will open the gates for the Creative Centre – a creative meeting place for all preschool teachers in the municipality of Norrköping.

In the Creative Centre it will be possible to be involved in developing a meaningful holistic approach in pedagogical activities.

The focus will be on creative environments, approaches and the children’s perspective, pedagogical documentation, project and process work, creating and art pedagogic, gender equality and literature and language awareness.

A new exiting challenge is waiting for us!





Educational practices as told by the teachers: comments and suggestions for a didactics of creativity

» Chiara Bertolini – University of Modena and Reggio Emilia

1. PREMISE

The following pages will outline didactic suggestions, providing practical examples of how these can take shape in the preschool settings. This contribution intends to create a link between two elements resulting from the comparison and research carried out as part of the CREANET project. On the one hand there are the practices aimed at enhancing creativity that were illustrated by teachers from the participating countries and discussed during Working Groups with their European colleagues¹. The practices to which this contribution refers to are to a large extent present in the previous pages of this publication, however the full list of practices on the basis of which this work has been developed is available on the CREANET website. On the other hand the indication of guidelines and didactic principles that could encourage creativity in the pre school age group coming from reflections and theoretical debate taking place over a number of settings during the meetings which took place periodically in different European settings².

It is important to clarify immediately certain aspects that go along with the concept of educational-practice. Laeng (1992) understands it to be an action aimed at achieving a goal through the creation of an educational project. Pellerey (& Grzadziel, 2011) underlines that


it concerns a human activity that takes place in school, characterized by interaction between teachers and students, aimed at promoting the development of the same students. Mialaret (1998) defines it as an educational situation unique in terms of time and space, organized and managed by the teacher. The scholar also underlines emphatically the strong link between practice and theoretical reflection of a pedagogical nature: methodological indications should come from theory, not so much in a prescriptive way but rather as suggestions or educational proposals and even boundaries within which educational practice should be paced so that the expected results may be reached. Regardless, the influence appears to be reciprocal: practice can solicit reflections that are useful to development of theory itself.

By adopting this perspective, the guidelines presented in the previous paper could be read in a practical-project way, or they could be intended as methodological indications useful to the planning of a context aimed at the promotion of children's creativity through an incisive and valid educational practice (Pellerey, Grzadziel, 2011).

In particular, the following pages will attempt to retrace in teachers' professional practice the educational indications that emerged during the debate within the CREANET project with the aim of discussing them through

¹ The practices presented during the COMENIUS-CREANET course have been gathered together and can be consulted at the following link: <http://www.creativityinpreschool.eu/creanet/bestpractices.htm>

² In the previous paper Roberta Cardarello and Antonio Gariboldi illustrated and described the educational principles and methodologies that emerged from the European meetings.



examples so as to demonstrate how they can be broken down and translated into concrete action, and to demonstrate the practicality of such indications in early childhood settings.

2. METHODOLOGY

In order to retrace and render visible a link between the educational indications aimed at promoting creativity and educational practice, the projects carried out at school and described by the teachers during the CREANET encounters were studied attentively³ and were seen to be representative of educational practice that favours creativity. 36 projects were studied in total⁴. The corpus of this material contains all the presentations carried out during the European Working Groups with the exception of those discussed in the first encounter in Beja (2011), in which the teachers were asked to describe in general terms the school they belonged to. The basis made up of the 36 files is varied and composite. Some practices were illustrated through a form (named 'description form') which set out to describe the educational pathway in question through the compilation of particular sections⁵, either by Power Point presentation or in video format which was discussed orally with European colleagues during the Working Group sessions. At times, the two different ways of describing saw complementary information emerge, at other times they were found to be redundant from the point of view of content. (Paoletti, 2011).

Certain practices were only described through one of the two required formats.

While the teachers were required to describe an educational practice that had the function of stimulating

creativity, could the material gathered be considered in some way a-critical or a-problematic in terms of representing a selection of good practice for the promotion of children's creativity? First, because not all the descriptions adhered to the actual request, focusing at times on creativity in terms of teachers' teaching rather than on that of the children's creativity. Secondly, that body of practice should be thought of as representing not so much the absolute valid educational models but rather the multiplicity and variety of concrete contexts and practical actions used by the teachers, which they consider to be useful in soliciting creativity in pre school aged children.

The 36 examples of practice were examined with the aim of retracing the educational directions presented in the previous paper. This analytical work was not simple, partly because the dissimilarity of practice and ways in which they were described. Sometimes generic educational programs lasting one year were illustrated, at other times shorter projects were described in detail. Into the presentation of practices, at times photographs assumed a crucial role which allowing for an unambiguous reconstruction of the programs characteristics. Overall, the descriptions of the learning and teaching processes were not completely transparent and self explanatory. Moreover, not all gave the same information. For example, some concentrated on the description of the processes and others of the products.

At times, the desired indicators were declared verbally but not carried out in action (e.g. it was said that critical reflection on experience was encouraged and yet the way this was actually done was not described), at other times the indicators were not explicitly declared but we do not necessarily consider them as being absent (e.g. an indica-

³ The analysis of the practices was carried out by the author.

⁴ The material was downloaded from the following link: <http://www.creativityinpreschool.eu/creanet/bestpractices.htm> by 3rd May 2013.

⁵ For each project, the description form asked to explain: title, goal of practice, time, spaces, procedure/methodology (role of teacher/ distribution of groups /documentation), materials, conclusion (final reflections) and which of the seven key words were highlighted in Beja (2011) as being characteristic of creativity and recognized in the practice and the reasons given.





tor such as character rarely emerges over time. It is possible, however, that certain elements, though not actually declared, were in fact present in practice). In the following paragraphs certain practices will be used as concrete examples of educational indications in favour of creativity that have been previously presented. They should be seen as representing aspects present also in other practice that remain untold due to lack of space.

3. ATTITUDE OF THE EDUCATOR IN FOSTERING CREATIVITY

The first suggestions of an educational nature that emerged from the CREANET debate regard the teacher/educator.

The aspects which should characterize both their planning and practice are many.

It should be said from the outset that in terms of specific topics in question in the following paragraphs (time, space, material, collective situations of open ended problem solving and the combination/mix of languages), these are rarely defined explicitly in the teachers' presentations, who even when they declare them, actually struggle to break them down in terms of concrete action; perhaps because they are concerned with aspects which are linked more with attitude and awareness of the adult at a professional level. This is also concerned with characteristics which are woven tightly together, but which for clarity's sake we will attempt to illustrate separately.

The foremost characteristic of effective education for creativity regards the ability and the habit of the teacher *to propose tasks which expect open results*, or rather, tasks which can be faced in different ways with a number of possible solutions. It is therefore the contexts themselves that solicit in children project led thinking which starts from the analysis of the initial situation so as to arrive at its transformation (Castoldi, 2010). This type of task is potentially able to promote creativity, because in carrying it out it is very probable that the chil-

dren run up against problem solving situations which foresee multiple solutions (which is discussed in detail in paragraph 6).

The second suggestion which emerges from the CREANET debate puts the accent on the importance of *accompanying children* during the experience, providing them *an emotional support* (supportive behaviour).

Many authors in the theoretical debate on educating for creativity indicate the need for providing a psychologically reassuring environment in which it is possible to fail and make errors (de Sousa, Fleith, 2000; Harrington, 1999).

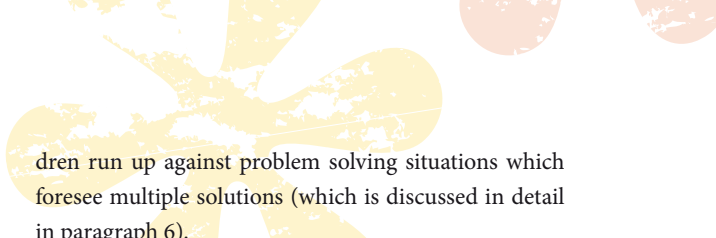
If creativity is solicited, in fact, through open ended problem solving situations, then, precisely due to the absence of one single and conventional answer, children can stumble over obstacles and can even taken inadvisable roads.

An error, however, should not inhibit thinking, but rather, should become an educational opportunity, or rather, a stimulus for continuing to find alternative and perhaps even divergent paths.

By searching for such solutions it is important to promote and maintain the willingness of the children to participate cognitively in the task, to become involved and to express their own thoughts without fear of making mistakes.

It becomes necessary therefore, to provide an accepting and non judgmental atmosphere, in which relationships with peers and with educators are supportive and empathic, rather than based on competition and performance (Travaglini, 2000; Griéger, 2003; Laslock, Winefiled, 2011).

Despite the importance of this dimension, however, there are very few presentations discussed in the working groups which declare its use underlining its operative aspects. When the teachers from CREANET cite the need to give emotional support, they speak of it in a more abstract sense, in terms of: help, encouragement for the more timid children and the need to express trust in their abilities to the children (e.g. Chris-





tian Pre school of Liepaja, Latvia; Nossa Senhora de Piadade, Portugal; Puriena, Lithuania; Vikbolandets, Sweden)⁶. A useful tool for creating a welcoming and non judgmental environment could be ‘verbal mirroring’ (Rogers, 1951, 1982). This is a communicative strategy which allows the adult to centre the conversation on the children’s thoughts and tune into their reasoning. When the adult mirrors, they express and show to the speaker active listening, genuine interest, intention and desire to know the others thoughts without being judgmental. These are the reasons why mirroring can create an environment in which children are more willing to participate cognitively in the activity, express themselves and become involved without hesitation. (Bertolini, Cardarello, 2012).

The discussion relating to the need to provide emotional support during the creative process is linked to the third suggestion of an educational nature that highlights the benefit of *recognizing the importance of children’s ideas*. It concerns a particular adult behaviour which contributes in turn in communicating to the children trust and interest on their behalf, creating a welcoming climate and non judgmental climate which promotes their willingness to participate in the task. Much different practice was discussed in the Working Groups which exemplify ways in which it is possible to translate these suggestions into practice. In some cases, the entire experience came from a particular interest by a group of children in some theme that the planning then pivoted on. For example, the experience presented by the Calimero School (Croatia) had its origins in the children’s intense curiosity towards pebbles and stones. Having gathered their interest, the teachers then promoted and supported their exploration of the material through the use of books, audiovisual material, visits to the museum and manual activities. Next, the children were invited to assemble stones and pebbles of different sizes,

shapes and colours with the aim of making designs and decorations (like mosaics) and to construct objects for daily use (such as a vase). In other practices, the ideas that the children expressed during their learning journey were gathered, accepted and read by the teachers as practical proposals. In the experience described by the Rodari School (Italy), the children explored, gathered information and created objects, costumes, dramatizations around the story of “Orlando in love” by Boiardo. Throughout the projects, the children even suggested inventing a story using the characters from the work. The teachers welcomed the idea, supporting and encouraging the process of collective invention of a narration. In a similar way, the experience documented by the Luthaa Day Care Centre (Finland) came about from the children’s pronounced interest in marine life. Around this theme, the teachers supported the children in gathering new information, in inventing a story set on the seabed and in construction an animation. During the project a little girl expressed the desire to impersonate the role of a mermaid and the teachers therefore suggested that a small group of children should organize a dance for mermaids and pirates. It seems evident that giving importance to children’s ideas requires a flexible and dynamic planning style that is constituted by the practice of active listening (Fratini, 2003) and broadly speaking the dialogues, thoughts and actions of the children so as to discuss them with the team of teachers with the aim of throwing back to the children interesting, seductive contexts and instructions which solicit the creative process well.

Even the fourth characteristic of good practice- *recognizing creativity within the daily routine* -, is concerned with the same style of planning. It is concerned once again with listening to the children with the aim of highlighting interests, and thinking in their spontaneous behaviour and in routine moments, that they could

⁶ Each practice was named and identified through the name of the school and of the nation of origin. Due to lack of space the section of the Working Groups in which each practice was discussed has not been included.



become useful occasions for encouraging potential creative thought. The Nossa Senhora de Piedade School (Portugal) recounts an interesting experience which came about during lunch when by accident, a glass full of water was spilled over onto the table and a child began to experiment and list, with the pleasure one experiences when playing, the objects that the mark made reminded him of. His friends were very enthusiastic about the game and began to participate. The teachers decided to use the episode as the motor for a project on creativity. They set up a space where children could explore and experiment with collared liquids, they played at imagining what it seemed to be and then they imagined what the shape made by the liquid could represent. The experience could have continued on the theme of transformation, for example, with the technique of 'imaginative pairing' (Rodari, 1973), which could have accompanied the children while inventing stories thanks to the unusual combination of what the mark on the table seemed before and after its transformation. One can suppose that the children had seen in the small puddle first a dog and then a wardrobe.

The teacher, at that point, could have relaunched the suggestion: What could happen to a dog that always carried his own wardrobe on his back? (Rodari, 1973; p.22). The work would then have been potentially even more productive if the invention had taken place within a small group.

From the point of view of the teachers' behaviour and professionalism in promoting creativity, the latest suggestions which emerge from the CREANET meetings regard *knowing and understanding children's development and the development of learning and teaching processes*. This is about an indication of general value which, perhaps precisely because of its abstractness and lack of specificity, is highlighted only rarely in the practice presented in the working groups.

Undoubtedly each time that a project is planned with the aim of soliciting certain competencies, certain strategies must be chosen and activities developed that take

into consideration both the level of development of the child and the theories of learning and teaching being referred to.

This problem emerged in the CREANET teachers words in the question form. At times it was concerned with broad generic questions, such as : how is it possible to promote children's learning (Svanen, Sweden; Puri, Lithuania)?

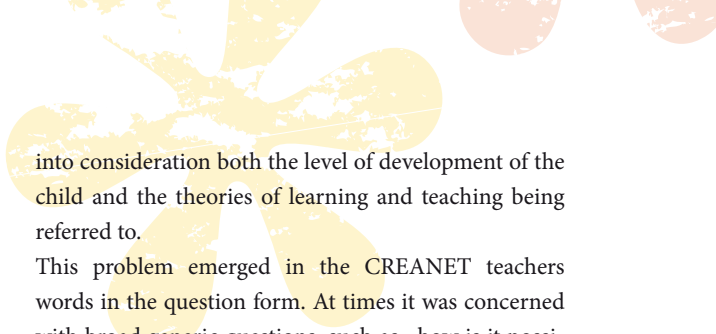
In other experiences, however, teachers asked more precise questions about predisposing and using materials and environments, both without and within the school, with the aim to promoting children's learning and creativity (Vikbolandets, Sweden; Nyckelpingans, Sweden). In a similar way, other teachers reflected on how to use and propose technology to encourage student growth (Luthaa Day Care Centre, Finland; Silverdansen & Vikbolandets, Sweden).

4. ORGANIZATION OF TIME

In promoting creativity an important role is played also by the organization of the experiential context, i.e. from how the adult predisposes and manages time and spaces (that contain the material) into which the children's activities are inserted.

As far as the organization of time is concerned, three characteristics that could favour the development of creative thinking were indicated.

First, *continuity of the proposed experiences* is suggested. Practice is good when the activities carried out by the children are linked to each other not only by their common guiding aim, that is by the promotion of creativity, but also by that '*fil rouge*' or *common thread* made of the intentionally gradual and logical order of the activities. In some of the practice discussed during the working Groups, for example, children were invited to participate in different activities that had the aim of supporting creative action by retracing, perhaps unconsciously, the phases proposed by Adams and Chen (2012). The two scholars highlight 4 types of creative





processes, which are , from the most simple to the most complex, the following:

- ◆ *Exploration and experimentation* of materials with the aim to understanding the physical properties. This represents a preliminary and necessary condition to the following steps.
- ◆ *Making and Constructing*, which consists in combining/assembling explored materials without the child necessarily intending to build or make anything definable.
- ◆ *Inventing* something with a function or an aim that is previously planned by the child.
- ◆ *Creating together* which entails peer involvement and dialogue aimed at the construction of something in common and on a large scale.

Proposing experiences in continuity over time therefore means- as happened in certain practice- making available activities in time with a planned logic that is expected to encourage in the children an attitude of exploration and knowledge of the spaces and materials. Only after this are the children invited to construct something. As already suggested by Munari (1981), it is in fact not possible to plan and create anything creative if we have not first explored and experimented materials and techniques. In this regard, the practice presented by the Vikbolandets school (Sweden), that lasted for an entire school year and that included several stages.

In the first stage the explorational actions of the children were supported and promoted in different contexts (internal and external) and with respect to a variety of natural materials (sand, leaves, etc). In the second the children had the possibility of experimenting solutions and actions with the aim of facing certain open ended problems of different types (how to get a trunk up to the top of a slide, how to cross over an axe balanced on top a trucks tyre). In the last stage of this practice the children were invited in different moments, both individually and as small groups, to assemble natural, unstructured material with the aim of constructing something planned.

In other practices, as well as the gradual logic of the activities proposed, is recognized even a certain continuity in the content, reminiscent of the programming logic of the integrating background (Cristanini, 1997). In this experience, exploration, experimentation and construction are concerned with the same argument.

This is the case of the project carried out and described by the Luhtaa Day Care Centre (Finland), centred entirely on the theme of marine life. The project began by inviting the children to recount, dialogue and exchange knowledge concerning marine fauna and flora. In this phase, as happened in certain other practices, one could have proposed differing types of explorations into the theme, both directly- e.g. through a trip to the sea or to an aquarium- or indirectly- e.g. through stories, photos, video documentaries.

Afterwards, the children designed the marine life using different pictorial techniques. Thanks to the suggestions of their teachers projected onto the wall, a small group of children invented a story about mermaids and pirates that they then made some animation about. First, the small group drew the scenes then they listened to, chose and added the music and then they constructed the characters and brought the dramatization to life. At the end of the experience, the children danced together their own mermaid dance accompanied by the animation sound track.

In other practice, the concept of continuity over time also regarded the educational format of the proposals made, such as, for example, the experience described by the Kalimero School (Croatia), during which the children worked on the theme of autumn.

First they explored the argument by listening to certain stories about animals and sprites that took place in autumn and then by observing directly the woods throughout the autumn months. The visit to the woods was repeated several times and each time, the children found the same fruit basket including a letter from a sprite who invited them to produce something new each time: a story that the sprite could have read during



the long winter period, an autumn drawing etc. By continuing to face the theme of organization of time within an education perspective, it is suggested to *expect a time for reflection* that corresponds to time in which the children are able to think about the experience had, to re-elaborate and revise it.

According to Runco and Cayirdag (2009), this relaxation of time that foresees even long extended moments of sedimentation and articulation of thoughts is an essential condition for the emergence of processes of recombination and creative association.

As suggested by certain practice, envisaging *time for reflection* can be translated in practice by proposing periodically and throughout the whole length of the project occasions for dialogue between children (Nossa Senhora de Piedade, Portugal; Christian Preschool of Liepaja, Latvia).

This concerned peer discussion that could be carried out both in pairs and in small and big groups, during which the children dialogued on the experience taking place so as to construct a collective memory, so as to give shared significance so as to create dialogue between different ideas and view points (Christian preschool of Liepaja, Latvia; Rodari, Italia), and to arrive at the shared planning of something to construct and create together (public preschool I Gelsi, Italy).

Such discussions can also constitute an occasion for teachers to collect the children's interests and thoughts so as to then relaunch projections that are adherent to their propensities (Nossa Senhora de Piedade Portugal; Rodari Italy), as already partly discussed in paragraph 3 relative to the indicator recognizing the importance of children's ideas.

The discourse surrounding the opportunity to offer time for reflection that is directly linked to the third characteristic of effective time management in terms of the promotion of creativity: the *distension/extension of time*.

The possibility of having at disposal a great length of time, that is not limited or finite in a brief amount of

time, certainly encourages the emergence of creative processes which mature when the experience taking place has the time to grow and evolve due to children's reflections and revisions.

Moreover, often creative thinking and action are connected to a strong intrinsic motivation to participate cognitively in the experience that brings about the loss of awareness of the time passing (Mainemelis, 2002).

Extended time is a characteristic that does not emerge easily in the practice described by the teachers, who often define the total amount of time given to the project without indicating how it is managed in terms of each activity. Indeed, one does not consider to be extended the practice that includes many activities during many months (sometimes over even more than a school year), but rather even a short experience that sees within it activities that can be carried out over long extended periods of time.

From this point of view, the experience described by the public preschool I Gelsi (Italy) is exemplary, in which small groups of children had the opportunity to work for a week in a space dedicated to constructiveness.

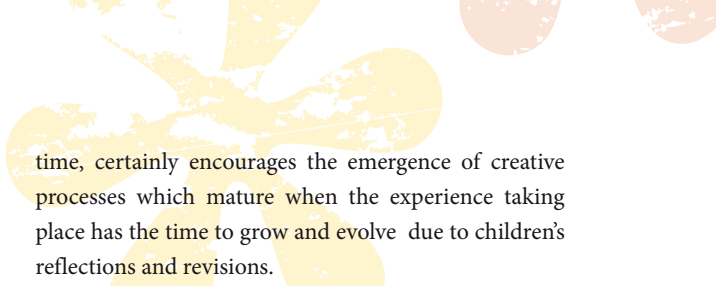
On the Monday the children went into the space where they found, divided in an ordered fashion, a variety of unstructured, natural and recycled materials.

The task involved constructing a city together. In order to create it the children needed time and space to explore and experiment the materials individually.

They then needed to make comparisons, to share their experiences, to make projections about constructing the city, they had to decide how to combine the individual products and to face together the problems of construction which they gradually came across.

During the week the city took life, it grew and changed. Day after day, the children continued to think, make projections, and construct this collective city, which became the basis even for pretend play and eventually the stimulus for inventing stories.

Only on the Friday, was the city eventually destroyed by the children who then reordered the space.





5. THE POSSIBILITY OF EXPLORING AND EXPERIMENTING WITH DIFFERENT SPACES AND MATERIALS

The discussion on time management is connected to that relative to space and materials. According to Gariboldi (Gariboldi, Cardarello, 2011), in fact, creativity finds fertile terrain when certain conditions coexist: the presence of materials that offer multiple opportunities for use, the possibility to explore, experiment and reflect in extended time and the presence of an adult capable of *making available adequate environments*, i.e. environments that guarantee once again the possibility of a plurality of experiences of exploration and discovery. The attention given to organizing spaces and material is certainly a crucial element in the promotion of creativity. In this respect, Harrington (1999) puts the accent on the need to plan and organize spaces in a targeted manner so as to give children occasions in which to find, explore and utilize different materials, which are structured, unstructured, natural and recycled. During the Working Groups, some practices underlined exactly this aspect. The project from the Gräfenhausen school (Germany) is interesting from this point of view, as it required particular care in the predisposition of spaces which were rich in materials where the children could explore, experiment and construct. On this occasion, the teachers set up a number of different contexts: a space where it was possible to work with wooden and glass objects which were unstructured or semi-structured, such as cubes, cylinders, pieces of tracking, marbles etc. In another space the children could explore and construct with collared straws and string. Then there was a room dedicated to the construction with semi materials such as Lego duplo. There was a room dedicated to symbolic and role play. By continuing to think along these lines, it would have been possible to dedicate space even to natural materials (such as branches, leaves, stones, shells), another to recycled plastic material (spoons, bottles, yoghurt pots) or to cardboard (empty toilet rolls, woollen reels...)...

Certain schools even underlined the importance, not only of making a variety of material available, but also of organizing it in an ordered fashion by type, colour, material... (Patronato Santo Antonio, Portugal; public preschool I Gelsi, Italy).

Another important suggestion in terms of education regards the *transformability of spaces*. Children's creativity is facilitated in fact, when the adult is willing and able to change the space in light of the children's interests by proposing flexible and dynamic contexts that are potentially able to support and solicit cognitive involvement for the duration of the whole period. The experience of the I Gelsi public preschool (Italy), described in the previous paragraph, is also interesting from this point of view. Not only was an extended amount of time envisaged during which the children discussed and constructed together the city as a work in progress that lasted a whole week, but it a physical space in which the children's work was maintained day after day was also needed. A space which was transformed and changed over time due to the specific attention given by the teachers both in the choice of materials and in the periodic substitution of the same so as to support and encourage creative processes- of exploration, experimentation and construction- that were being developed with the small group context.

Within this discussion on space and materials one finds another suggestion in terms of teaching that came from the CREANET discussions: the *promotion of exploration/experimentation with different spaces and materials*. Such an indication finds an explanation in the fact that exploration and experimentation, according to many authors, constitute a necessary step in the creative process for reaching that final goal of invention and construction of something (Adams, Chen, 2012; Harrington, 1999; Arieti 1979). In the practices discussed in the Working Groups it is possible to retrace this indicator which can be broken down in different ways. Certain experiences were entirely and only dedicated to the promotion of exploratory behavior. This is the case of






the practice presented by the Pink Panther infant toddler center (Italy), during which the children had the possibility to meet, explore and experiment in different contexts: first a large space whose floor was covered with newspapers, then the same space was changed and set up with large pieces of colored material. Next, the material was substituted by medium sized open cardboard boxes and then by different sized colored balls. In each situation, the children interacted freely with the material and with their peers. This represented an interesting experience that we may consider to be a good first step towards the promotion of creativity, in so far as it did not bring the children to associate the material with the aim of creating something. Not by chance, it is concerned with a practice that is destined for children in the 0-3 age group. The experience carried out in the Gintarélis school (Lithuania) is also interesting. The children's exploration was solicited by pivoting on the plurality of the senses: children touched different materials with their hands and feet (rough, smooth, dry, wet,...), they worked with objects of different colors (black, grey, white, flamboyant) and they listened to sounds from nature. In another project children worked with fruit and vegetables, looking at it, touching, smelling and tasting it (Rodari, Italy).

In other practices, however, the teachers set up spaces and proposed materials that were destined to promote experimentation most of all. In the experience of the Nossa Senhora de Piedade School (Portugal), for example, a laboratory corner was set up for the children. The children demonstrated interest, in a creative sense about the colored liquids and the shapes they made when poured onto a surface. The teachers prepared a space in which the children could prepare solutions with solvents and solutions of different types, so as to experiment with pouring them onto different colored surfaces and observe the consequences.

In the majority of practices, exploration and experimentation of materials was functional to the construction of something. In this experience, children used ma-

terials of different types: structured, unstructured, natural and recycled. These were objects with an undefined use with a great deal of potential in terms of promoting creativity. However, as already underlined, when you want to use them to build something, you need to first explore them and experiment with them in order to be able to understand their functional characteristics and discover the possible ways of using them (Smith, 1996). In this regard, for example, in the practice discussed by the Santo Antonio School (Portugal), the children first had the opportunity to explore autonomously over an extended time a variety of recycled materials. In particular, they observed, touched, manipulated, smelled and sometimes even bit, plastic cups, spoons and bottles as well as supermarket trays which at previously contained steaks from the supermarket, milk containers, aluminum foil rolls. After having left the children to discuss the experience together the teacher asked them to invent a story about the objects they had examined. The children then constructed together a story and assembled together recycled materials to construct the characters from the story as snakes and giraffes. In the end they used the characters to act out the story itself.

Good practice in terms of creativity should therefore include occasions for exploration not only relative to the material but also to the spaces themselves. In the practices discussed in the working groups, the exploration of the spaces often concerned the interior and exterior of the school building (the school garden), only rarely was it concerned with the neighboring area such as the local park, forest, beach, town centre, zoo etc. The experience described by the Munksnas school (Finland) is interesting during which the children were able to experience certain outside spaces of the school and the surrounding area throughout the whole four seasons. In winter they observed the ice and worked with the snow in a number of different ways: the slid on the snow, they filled buckets with snow, they could have used it to construct something. In spring and autumn they gathered leaves, stones and pieces of wood that they then used in



compositions. In summer they used sand to construct castles in pairs. In a similar way in the school garden the Kite school (Lithuania), the children constructed labyrinths in the snow. At first, each child worked individually constructing their own labyrinth. Then, in small groups they observed and compared their own works so as to plan one labyrinth in the snow that they then constructed in a collaborative manner. At the end of the project one child proposed colouring the labyrinths. The teachers accepted the proposal and provided a variety of materials for colouring the snow constructions. It should be underlined then that it is the possibility of using and considering exploration of space as functional to the gathering of information that is useful to the next phase of invention /construction of something. In another experience presented by the Kite school (Lithuania), for example, the children together with their parents were invited to construct a school on a reduced scale using recycled materials. In order to allow and encourage the development of creative processes, the teachers prepared for an initial phase in which the children and adults could not only explore the material but also the different environments of the school, both internal (such as the kitchen, the pantry, the offices, the other classrooms...) and external.

6. INTERACTION AND COLLABORATION BETWEEN CHILDREN IN OPEN ENDED PROBLEM SOLVING SITUATIONS

By retracing the considerations of the previous chapters and thanks to the testimonies of practices gathered in the Working Groups, the characteristics that an education system which fosters creativity should benefit from become increasingly clear, both from the point of view of theoretical argument and from that of translation into operative terms. The promotion of creativity in the preschool requires that an adult assume a role of director, as supporter and facilitator of the children's creative processes, that there is extended time to allow the ex-

ploration of a variety of materials and contexts and that there is the possibility for sedimentation and maturation of their individual and collective experiences. The CREANET experience has continued to express this framework by suggestion the importance of encouraging peer *collaboration in open ended problem solving situations*.

Many of the practices discussed within the European context present this characteristic, breaking it down in different ways. The first reflection regards the task to pose to the children. Facilitating the emergence of problem solving situations does not only mean creating an adequate environment from the point of view of space, materials and of the welcoming and supportive behavior of the adult where the children can do what ever they like. It requires also, inventive, open ended tasks. This entails putting the children in problematic situations that are definite and defined and at the same time *ill-formed*, as mentioned by Ward (2009). One should formulate tasks that, while setting some constraints for children to respect, could grant them a wide freedom of action. In the context of the same situation, while maintaining the same constraints, each child should have the opportunity to follow different paths of reasoning and reach results that may differ.

In this regard, the practice discussed during the Working Groups give interesting examples. Many tasks regarded the construction of something with unstructured materials (models of buildings, animals, people, types of transport, environments, frames, candelabra, necklaces... for example as in the practice presented by Stiftelsen Sedmigradsky, Finland; Kite, Lithuania). Constructivity is always, undoubtedly a potentially creative context in as much as it is often an occasion for highlighting and facing problematic situations of a physical nature (that can be concerned with measuring distance, balancing weights....). However, examples of tasks in other settings come out of the practices, such as inventing stories and animations (e.g. in the practice described by the schools: Jardim de infancia Nossa Sen-





hora da Piedade, Portugal; Figueira de Cavaleiros, Portugal), dramatizing narrations-with puppets, through shadow play, by dressing up as characters (e.g. in the experiences described by the following schools: Christian preschool of Liepaja, Latvia; Puriena, Lithuania), representing phenomena in the graphic form, events, emotions and sounds (e.g. in the experience discussed by the Jardim Nossa Senhora da Piedade, Portugal) and organize dance and music (e.g. in the practice presented by the Bitute School, Lithuania). The experience described by the Silverdansen school (Sweden) is interesting which bears witness to the possibility of facing in a creative manner problems of a scientific kind. The project foresaw some visits to the forest, during which the children soon began to both logical and analogical thinking. A large mark on the ground became for the children a dinosaur's footprint. The teacher proposed measuring its surface and the children worked together to work out how to do this. Then the teacher proposed constructing something for hiding themselves in case the dinosaur should arrive, proposing a task of a constructive type. The children then decided to make a mountain with leaves. The teacher accepted the proposal and then proposed again a measurement problem this time in terms of the vertical dimension: how high should the mountain be to cover us? Throughout the experience the children worked in different open ended problem solving situations, which - generally and potentially- encourage creative thinking in so far as they require an analysis of the initial situation, planning and verifying a solution in order to be resolved, so as to bring about a transformation into its final state (Castoldi, 2010).

The motives at this point are clear, and so when one intends encouraging creativity in children it is useful, propose open ended tasks that have the potential to give rise to problematic situations. Such a context is even more fertile however, when *the problem is faced in a group*. Many examples of practice from CREANET foresaw peer interaction, both in pairs and in small

groups of 4-8 members (e.g. in the experience discussed by the following schools: Alice, Abracadabra, Mongolfiera & Soleluna Italy; Nyckelpingans, Sweden). The group works as a sounding board for re-elaborative and creative thinking of the individual. The problem is faced collectively by the group: different points of view and hypotheses are faced up until negotiation and the accepting of a solution that is accepted by all the children (Arieti, 1979). Each student expresses their thoughts, suggesting ideas and suggestions to their peers; so that gradually a unique process of resolution of a creative kind takes shape (Gariboldi, 2012). The experience of the Svanen school (Sweden) is representative of other similar CREANET practices and illustrates how a project can be imposed that expects multiple occasions for the resolution of a problem within a small group setting. The project came about from the interests of the children towards the story of a squirrel that had been read to them by an adult. The teacher throws back to the group the proposal that they draw first the events they had listened to and then the desires and feelings of the squirrel, posing therefore, the problem of their representation and representability. These last drawings were then discussed and compared within the peer group. After this, the teacher proposed to small groups of children to invent another story about the squirrel. In the encounters that followed the children proposed, exchanged, combined and negotiated their ideas so as to eventually make a common and shared narrative. Then the adult invited them to construct the scenes and the characters of the story and dramatize it. So again, the children decided together which elements and which characters to construct. They explored different materials so as to decide which ones to use. They discussed how to construct the scenes and characters by facing different kinds of problems (e.g. how to represent in model form a character trait, in which way could round objects be used to construct the wheels of a car...). At the end of the project they had created a dramatization and discussed the experience together.





7. MIX OF DIFFERENT SYMBOLIC LANGUAGES AND SYSTEMS

The last suggestion in terms of education regards the promotion of the *association and combination of different symbolic languages and systems*.

Vygotsky (1932) has already spoken much on creativity in the combined sense when he defined it as the activity that produces something new, either material or immaterial, combining elements with additive ends.

In this sense creativity is seen to be a thought which connects as the ability to bring out associative links connections and gather together unusual associations between ideas and objects, referring also to the different domains of consciousness (Gariboldi; 2012; Minerva, Vinella; 2012).

Perhaps, in the light of considerations made in the previous paragraph it is possible to think of the combinatory character of creativity even in social terms, or rather, when it implies the connection between the thoughts of different children.

As previously discussed, the comparison and interaction within a small group seems to encourage the emergence of more complex creative processes than those of the individual, thanks to the construction of a common thought that is the result of the combination and reciprocal influence of the contribution of each individual child.

By continuing to reason about this connection, it seems reasonable that creative education should include , among its various ingredients that accompanies it, even an internationality to develop different symbolic systems so as to make them communicate and integrate (Pinto Minerva, Vinella, 2012). Some practices discussed in the Working Groups indicate certain possible ways of facing this concern.

One way, perhaps insufficient but none the less useful, is that of encouraging the exploration spaces and material through all of the senses (as already discussed in paragraph 5).

A second possibility however regards the possibility of

facing a thematic knot by proposing in an organized manner a sequence of activities that pivot around different symbolic systems and languages.

In this regard it is useful to remember the experience carried out at the Rodari school (Italy), which centered on the story of *Orlando in Love* (by Boiardo).

The project started from the reading of different parts of the work (that had been revisited linguistically so as to render them understandable to pre school children). Then the children were invited to represent the events graphically.

After this, in a small group they explored and used different recycled materials to build Orlando's castle.

The teacher therefore continued to encourage combinatory thinking, but also imagination and the assumption of different points of view (creating almost a sort of confusion), inviting the children to both describe verbally and draw as though they were some of the characters from the story.

After this, in small groups, they constructed with recycled materials some characters from the events.

The transit from one symbolic language to another brought the children to visit even the Boiardo Castle (setting near to the school) and then to dramatize a war scene in one room and to dance party dances in another (episodes contained in the original work).

Within the experience, the story then, witnessed different transformations: the children re-elaborated faced them graphically, constructively and physically.

The project ended with the proposal coming from the children to invent a new story with the characters from *Orlando in Love* which was another occasion for supporting the comparison and combination of the children's thoughts and of the well known characters from the work of literature.

The third possibility regards, on the other hand, the possibility of translating and experimenting an experience that was pivotal to a certain perceptive sense and a certain language through another sense and another symbolic language.





The Christian preschool of Liepaja (Latvia) proposed to the children tasks of this type. In certain occasions, the pupils explored certain external spaces of the school- such as the public park and the beach- listening to the sounds of nature with their eyes closed, then the teacher invited them to draw the sounds that they had heard.

On other occasions, they listened to certain pieces of original music, drew individually the emotions they had experienced while listening and they discussed with their peers the meaning of the drawings they produced.

It was decided to invite the children to represent graphically the elements that escape from sight- such as sounds and the emotional state of people- in a type of open problem solving situation in which it was not possible to predict right or wrong answers.

By continuing to reason in this synesthetic logic of contamination of sensorial spheres (Pinto Minerva, Vinella, 2012) it would even have been possible to solicit the children to combine the languages in other ways with respect to those exemplified, such as for example by inviting them to express a color with a sound.

Another possible way of enhancing the combined use of symbolic systems consists in allowing the children to weave together logical and analogical thinking, as happened in the experience already described in the previous paragraph, by the Silverdansen School (Sweden), during which teachers and children, solicited from the experience in the wood, invented together an imaginative story about dinosaurs that also required resolving certain problems of a scientific type.

Analogously in the experience at the I Gelsi public school (Italy) the children had the possibility of interweaving and experiencing side by side activities of a logical-rational type (such as exploring the physical characteristics of an object, facing problems of measurement of distance, combining unstructured materials so as to construct something...) with activities that centered on analogical thinking (such as pointing out the imaginative similarity of an object or participate in symbolic play).

8. SOME CONCLUSIVE REFLECTIONS

The exploration of the CREANET experiences in search of methodological indications discussed in the preceding paper allows for certain reflections.

On the one hand, it demonstrates the possibility of putting into practice such suggestions within the context of the school and illustrates a variety of ways in which they can be translated into operative practice.


On the other hand, it contributes to outlining increasingly clearly the characteristics of educational practice in terms of creativity. The central role of the adult emerges, who should continually listen to the children in an active manner so as to gather their interests and processes on the basis of which they should re-launch proposals and contexts that are intrinsically motivating and efficient in terms of the promotion of creativity, within an education style that is flexible and centred on the children.

The teacher should be a director of the experience through their predisposition of psychologically and non judgmental welcoming spaces in which the children are willing to express their own thoughts without the fear of making mistakes. To act in a creative manner requires, in fact, the willingness to put ones self in the game and therefore it implies taking the risk of making mistakes.

Education for creativity should therefore, provide for the predisposition of a context in which an error is seen as an occasion for soliciting children's divergent thinking.

The adult is even called to organize the physical space in which the experience takes place, that should contain and offer an organized and usable for the children a variety of different unstructured and semi structured materials. They should also know how to choose and change the materials over time and in light of the interests and processes activated by the children.

Creativity based education moreover, needs to structure a pathway in which the activities proposed to the children present logical and planned continuity. It is necessary therefore to prepare initially contexts for exploration and experimentation of a theme, of material and /or a technique and only afterwards tasks of an inventive-con-



structive type. Along side this they should propose activities centred on different canals and languages so as to encourage their contamination.

The promotion of creativity does not mean simply leaving the children free to explore and act in environments that are rich in material. It is necessary also to propose open inventive tasks -such as how to construct a character, draw a sound, invent a story- that put the children in a problem solving context that allows and provides a number of possible solutions. In such a context, the children are forced to examine the initial situation so as to plan a solution.

Moreover, the role of the peer group emerges as crucial as at different times during the experience they compare, discuss, negotiate and revise ideas.

In order to emerge and be properly trained creativity requires an extended amount of time in which children can continue to thin of the experience, construct ideas and material products but where they can also correct themselves when they make mistakes.

To promote creativity in pre-school contexts is in sum an objective that can be reached: the CREANET experience tell us that the above mentioned elements appear as the most effective tools and strategies to achieve such goal.





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