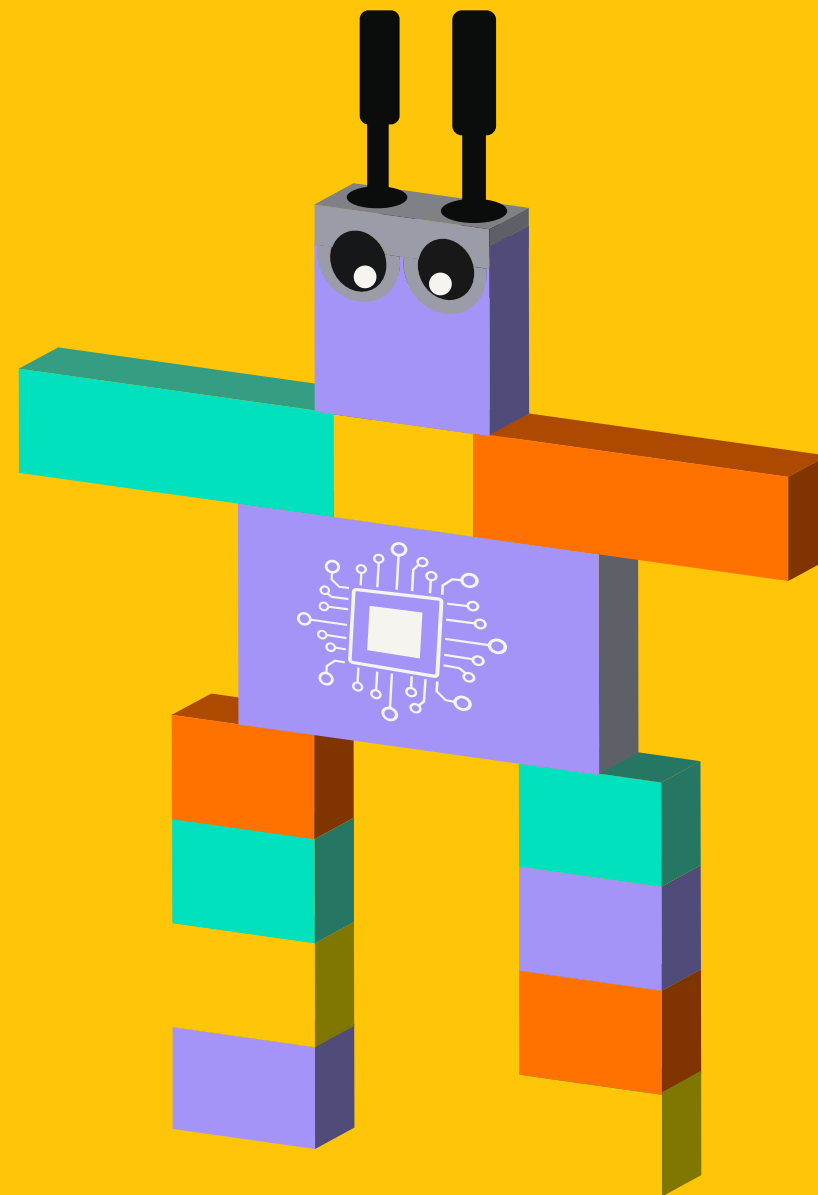# ECEC

Early Childhood Education and Care

COMPENDIUM

Good practices of ICT tools in ECEC sector

Italy • Lithuania • Greece • Spain

BEE-BOT ROBOT (Lithuania)

Purpose: to develop the child's programming skills, ensuring the child's creativity.
Teaching program – skills to be developed:
• Research;
• Relationships with adults and peers;
• Perception and expression of emotions;
• Initiative and persistence;
• Calculation and measurement;
• Problem solving;
• Self-regulation and self-control;
• Training of fine motor skills;
• Basics of programming.

Description: „Bee-bot", „Blue-bot" is a robot that can be programmed with the buttons on its back. The bee is able to move forward, backward, turn right or left. When you press the green GO button, the robot starts moving and then the children watch whether the bee is on the right track. When it reaches the destination, the bee informs you with an audible and visual signal. Bee remembers a maximum of 40 teams. The robot is easy to control, so preschool children can also control it.

Activity topic: „Anger management".

The object of the game: to correct misbehavior that occurs during anger. The game teaches constructive patterns of behavior that will help you manage and overcome this feeling without endangering the environment. There are 9 ways to cope with stress that teach a child to consciously choose alternative behavior in stressful situations.

Tools: robot-bee, activity mat with corresponding pictures.

Process: Available game options:
1. The child remembers an angry situation during which he or she did not control himself or herself, considers it and goes to the boxes that he or she believes would have helped to prevent the misconduct.
2. Playing in a group. Everyone goes to the box that suits them best and tells their friends why this particular way of overcoming anger seems best to them.
3. A bee can also help in a specific situation where negative emotions turn into misbehavior. Then we offer the child a little bee help, together with the little bee the child is more confident in choosing an activity, and after completing it, the little bee is sent to the „smiley" box (reward), thus establishing alternative behavior.

Target group Early/preschool children (2-7 years old)

Creation date 2022

Licence Marijampole kindergarten „Ruta"

Name/creator The use of „Bee-bot", „Blue-bot" tools in children's educational activities

Language Lithuanian/English

Links Active link 1

WORDWALL (Lithuania)

Purpose: Training program.

Description: Teachers can create their own interactive games for children or use created by others.

A wide variety of activities and games can be used to help reinforce vocabulary words that appear on the wall.

Worldwall as the platform contains a wide selection of mini-games that can be used to review theory, concepts and vocabulary items.

Worldwall takes gamification to the next level by offering a variety of mini-games. It can be both interactive and printable activities.

Interactive games can be played on any web-enabled device, such as a computer, tablet, phone or interactive whiteboard. They are designed to be played individually by children, although they can also be teacher-led, for instance by projecting the game and having students call out answers.

Most of the games offered on Wordwall can also be printed, either as a companion document to the online game, or as a stand-alone activity.

5 Worldwall activities provide fun and learning:

1. OOPS! - A fun game provides word recognition, vocabulary, and spelling practice
(www.educationworld.com/a_lesson/04/lp328-01.shtml);

2. Erasing Relay - a fast-moving game provides practice in recognizing grade-appropriate vocabulary
(www.educationworld.com/a_lesson/04/lp328-02.shtml);

3. Mind Reader - children use clues to figure out the "mystery word"
(www.educationworld.com/a_lesson/04/lp328-03.shtml);

4. Hot Seat – a child in the "hot seat" asks questions to discern the secret word
(www.educationworld.com/a_lesson/04/lp328-04.shtml);

5. Vocabulary Toss - reinforce vocabulary with this game combining reading and basketball skills
(www.educationworld.com/a_lesson/04/lp328-05.shtml).

Target group five and six years old and also for children with special needs

Creation date 2008

Licence -

Name/creator Wordwall

Language Lithuanian

Links Active link 1

Active link 2

Active link 3

Active link 4

ECEC

Co-funded by the European Union

GUDRUTIS DUTIS (Lithuania)

Purpose: Educational games.

Description: The project focuses on simple but effective interactive activities and educational games for children, both pre-schoolers and primary school children.

The range of tasks is very wide: numbers and maths, letters and languages, colours, learning about nature, etc.
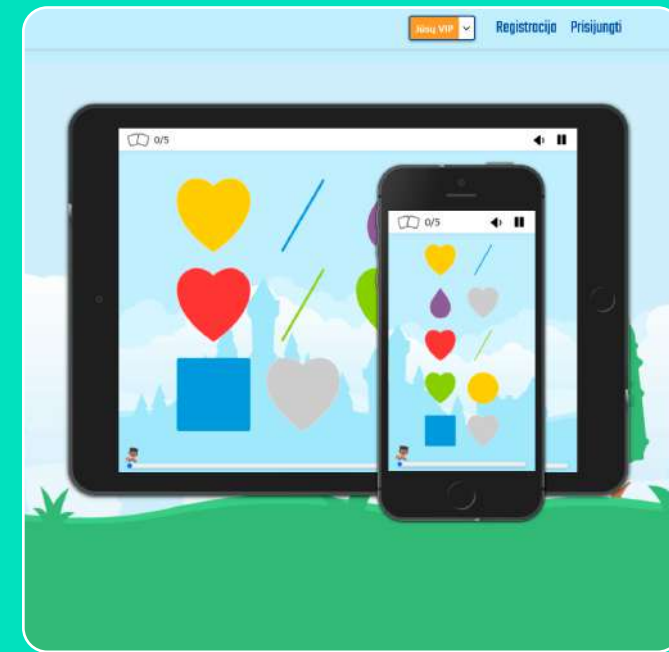
For example, the game "Number Recognition": before counting, the child has to learn how to recognise numbers - that's the aim of this game.

Next is "Letter recognition". An interactive activity for children from 2 years old! A great start for children to learn letters. Children have to click on the squares where the letters are written to show that they understand what symbols to look for. The tasks are short and simple, so children experience the joy of winning.

Shape recognition. The world is full of geometric shapes! A fun educational game with coloured geometric shapes will help you better understand the world around you.

Memory cards. Animals. A good memory is very valuable and can be developed. This colourful and playful memory game will help you achieve this.

The "Colour Gamut" game teaches about colours. By distinguishing them from other colours.

Target group For children aged 3 to 10 years

Creation date 2020

Licence -

Name/creator Gudrutis Dutis

Language Lithuanian

Links gudrutisdutis.lt/lt/zaidimai

WORD GAMES (Lithuania)

Purpose: to develop different areas of children's language with the help of interactive games.

Instruction: „Word Games" - a collection of interactive listening, speaking, emotion, music and physical activities. This program allows children to create their own melodies and learn gamma and rhythmic values, helps the child to reach a level of language that is sufficient to communicate freely with people around him.

Teaching program:
· Hearing disorders;
· Speech and language disorders;
· Disorders of fluent speaking;
· Learning difficulties;
· Delayed psychomotor development;
· Motor development disorders;
· Development of feelings and emotions.

Description: Activity theme: „Emotions".

Objective of the activity: Introduce the child to emotions and show different ways of expressing them using appropriate words (feelings, moods, etc.), but only the following are depicted: · Joy; · Anger; · Boredom; · Surprise; · Sadness; · Fear.

Tools: Smart tablets, computers, phones.

Results of the activity: · Verbally name emotions; · Recognize and describe other people's emotions (cheerful, sad, curiuos, angry, surprised, etc); · Draw your emotion; · Describe emotions in non-verbal language.

Next is "Letter recognition". An interactive activity for children from 2 years old! A great start for children to learn letters. Children have to click on the squares where the letters are written to show that they understand what symbols to look for. The tasks are short and simple, so children experience the joy of winning.

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The "Colour Gamut" game teaches about colours. By distinguishing them from other colours.

ECEC

Co-funded by the European Union

LEGO DACTA (Lithuania)

Purpose: Encourage children's interest in the world around them and restore it through construction. Develop self-confidence and a positive attitude towards learning. Accelerate problems - solving skills and processes dissemination.

Instruction: LEGO DACTA is a universal visual and work tool suitable for various subjects in the curriculum. We use LEGO DUPLO and SYSTEMS thematic and basic constructors in children's education. The thematic sets of LEGO DUPLO and SYSTEMS are used mainly to summarize the topic: the assimilation of social roles, nature, transport. The basic constructors of LEGO DUPLO and SISTEMS are used as sand. You can build everything from them. Perfectly complements LEGO themed collections. LEGO blocks are perfect for drawing. They can be used to draw on a table, carpet, LEGO base, for combined drawing. LEGO sessions can last one day (short-term) or a whole week (long-term).

Teaching program: • Creation of problematic situations; • Solving problematic situations in teaching activities; • Accumulation of conclusions; • Research; • Collection of information; • Systematization of your observations; • Application of mathematical knowledge in practice; • Creating diagrams and reading them; • Development and presentation of models; • Activity with the model.

Activity theme: „My city".

Objective of the activity: To acquaint with the structure of the city, to single out the main buildings, to deepen the knowledge about their purpose. Improve technical design skills. Teach to create schemes. Encourage self-expression, drawing conclusions.

Tools: LEGO DUPLO and SYSTEMS basic and thematic sets, additional material: paper, pencils, tissue scraps, natural material.

Results of the activity:
• During the trip, children will get acquainted with the buildings of their city's cultural heritage, their history and purpose.

• Learn to identify a problem.

• Arrange the buildings according to a pre-created plan.

Target group Early/preschool children

Creation date 2022

Licence Marijampole kindergarten „Ruta"

Name/creator The use of LEGO DACTA tools in children's educational activities.

Language Lithuanian/English

Links rutald.lt/papildoma-veikla/lego

ECEC

Co-funded by the European Union

SMART BOARD (Lithuania)

Purpose: To create fairy tales in order to stimulate children's creativity, imagination, development of spoken language, to enrich vocabulary, to play sounds and words, to pronounce them correctly.

Instruction: SMART BOARD - It is a board where children can perform various actions on the screen, listen to audio, watch videos, maps, observe and complete tasks with the help of a special pen or fingers. It is a valuable learning tool as it is a visual resource to help the teacher present new material very vividly and interestingly like a large computer with an interactive screen. Thanks to the program, it is possible to create a fairy tale, tasks where you need to sort, separate, explore. The resources of the smart board gallery allow you to supplement the material with visual and audio information. In preparation for the activity, teacher can choose suitable pictures and interactive objects, change them, use the tools and games created on the websites.

Teaching program: • Cognition of feelings and emotions; • Language breathing training; • Relationship with peers; • Correct pronunciation of sounds; • Development of auditory perception; • Training of fine motor skills; • Knowledge of colors; • Knowledge of nature; • Concentration of attention.

Activity topic: „My fairy tale".

Objective of the activity: Encourage the development of the child's language and improve the spoken language.

Tools: Smart board.

Results of the activity:
• Sort pictures by sequence of fairy tale.
• Language breathing training.
• Training of fine motor skills.
• Pronunciation of sounds.
• Combine words by 2-4 words.

Target group Early childhood education children (2-3 years old)

Creation date 2020

Licence Marijampole kindergarten „Ruta"

Name/creator The use of smart board in the education of early age children

Language Lithuanian/English

Links -

ECEC
Co-funded by the European Union

SMART BOARD (Lithuania)

Purpose: Introduce digital games by involving children with special educational needs in the educational process.

Instruction: SMART BOARD is like a large computer with an interactive screen. Games with a smart board encourage to know the language, letters, enrich the vocabulary, play sounds and words, pronounce them correctly. Children with low, medium and high special needs, as well as language and communication disorders, are used to listening to the language of a friend or teacher, to hear the information conveyed (for example, to sort words with K-G sounds).

Teaching program:
· Relationship with peers;
· Correct pronunciation of sounds;
· Development of phonemic hearing;
· Training of fine motor skills;
· Concentration of attention.

Activity topic: „Differentiation of sounds K-G".

Objective of the activity: Identify sounds K-G in the words.

Tools: Smart board.

Results of the activity:
· Sort pictures by sounds;
· Clearer pronunciation of sounds;
· Consolidation of sounds in words;
· Ability to set the specific sound in words.

Target group Early/preschool children (4-7 years old)

Creation date 2019

Licence Marijampole kindergarten „Ruta"

Name/creator The use of smart board in the education of early/preschool age children.

Language Lithuanian

Links Active link

INTERACTIVE FLOOR (Lithuania)

Purpose: using interactive floor to develop children's cognitive, communication, social, artistic and health competencies.

Instruction: You can choose from approximately 56 saved games. The device contains a wide range of games: counting, sports, language teaching, math tasks, world cognition, etc. It is easy to play and tasks performed simply by the movements of the legs and arms.

Teaching program: • It is a universal educational solution that takes into account each child's age and individual characteristics; • Educational activities take place in the format of active games; • Opportunities are created for the child to create and change the environment; • Opportunities are created to integrate various activities (music, movement, self-expression, artistic activities, elementary mathematical skills); • An innovative tool designed to develop children's coordination, reaction and logical thinking.

Description: Subject: In the kingdom of colors and music.

Objective: performing the tasks will correctly display the spoken colors and create a melody.

Tools: Interactive floor.

Process: Teacher says the color and children stand on the piano key of that color. So different colors are said and the child stands up where needed. In this way, children not only learn and repeat the colors they have already learned, but also create music. Each key emits a different melody. Pupils experience the joy of cognition and feel like musicians. The activity is repeated until all the children have done it. These activities can be diversified by dividing the children into pairs or small groups. Then teamwork skills, concentration and coordination are developed.

Results of the activity: correctly displayed the named colors and thus created a melody.

Target group Early/preschool children (2-7 years old)

Creation date 2021

Licence Marijampole kindergarten „Ruta"

Name/creator The use of interactive floor in children's educational activities

Language Lithuanian/English

Links Active Link

www.breezecreative.com/dynamic-floor

ECEC

Co-funded by the European Union

CUBETTO (USA, Spain)

Purpose: Cubetto is a nice wooden robot that will teach the little ones the basics of programming through sensory play. Inspired by the Montessori method and the LOGO turtle, it is specifically designed for those who cannot yet read or write.

Description: Cubetto is a robot made of wood, resistant and pleasant to the touch. It allows access to the world of Programming without screens, directly with the hands and without the language barrier.

It has different elements:
1. Dashboard
This wooden board is the control panel on which the programming tokens are placed. Cubetto will execute the sequence created by pressing the round blue button.

2. Programming tabs
A tangible programming language through manipulable pieces. Each of them represents an action and can be combined to create sequences.

3. Supplementary material
Complement the learning with Cubetto using maps, manuals, educational stories and didactic guides.

Target group Cubetto programming kit for boys and girls from 3 years

Creation date -

Licence -

Name/creator Editorial Edelvives

Language Spanish/English

Video Active Link

Links cubetto.vicensvives.com

BEES IN MOTION: CHILDREN, CODING LANGUAGE AND NATURE (Italy)

Purpose:
· introduce computational thinking;
· educate children to be active subjects who build, think, test and verify;
· to initiate children towards digital skills.

Description: We tried in our kindergarten to introduce a path for the development of computational thinking in children; the premise is to educate children to be active subjects who build, think, test and verify. In fact, making a pigtail means putting children in a position to execute or invent a series of instructions in sequence to reach a goal; in other words, it is building, solving, reasoning ... it is developing computational thinking.

The world of nature fascinates children, so we used a robot bee as the protagonist of the coding activity.

At first we presented bees and how their life is structured inside and outside the hive.

We also reasoned about their importance: bees are very precious insects for the ecosystem because, in addition to giving humans many excellent products derived from their work, they contribute to the pollination process. This is why it is important to learn to recognize hives and to protect them. Bees go in search of flowers from which to draw pollen. They are never aggressive towards humans unless they feel threatened. Just move away from the hive and leave the little bees quiet to continue doing their work.

This first moment was very significant as in the 3-6 age group the need for concreteness.

After this brief introduction the educator invited one child at a time to use the robot bee: the child had to guide the bee towards the flower.

It was a very engaging and inclusive activity: each with their own skills was able to move the robot bee.

We also observed that they have indirectly matured and consolidated some basic skills of kindergarten such as orientation in space, laterality, creativity, logical-deductive thinking.

Target group Children age 3 to 6

Creation date 2021

Name/creator Bees in motion: children, coding language and nature"

Teachers of Kindergarten Santa Croce in Perugia and POST - Perugia Workshop for Science and Technology

Language Italian

Links -

MAKER@SCHOOL (Italy)

Purpose: The aim is to check whether the new teaching methods are able to contribute to overcoming frontal teaching methods, in favour of experiential teaching in which pupils become the authors of their own learning. To develop socio-relational skills Enhance the development of logical-mathematical, scientific and linguistic skills. Stimilate children's imagination using ICT software and hardware.

Description: Maker@School" is a project that is part of research 4 "Tools and methods for laboratory teaching", which analyses the phenomenon of makers in relation to the scenarios and effects on the Italian school system. The "Maker@School" project analyses the specificities of the learning model proposed by the "Maker Movement" applied to laboratory teaching in schools. The research aims to investigate the possible interactions between the working methods of the "craftsmen 2.0" and the current learning patterns of students. The "digital artisans" are those who, with passion, design and build mechanical and electronic equipment in their laboratories, called Maker spaces or Fab Labs. The aims of these maker-type activities, is firstly to enhance the development of logical-mathematical, scientific and linguistic skills, to bring out meta-skills and soft-skills and to stimulate students to a more participatory and engaging approach. The product design and production activities are also a connection-bridge between the school environment and the outside world, as they provide students with advanced skills that can be easily used outside school. At the didactic level, design and creation of the object become a pretext for implementing mechanisms of analysis and self-analysis and putting into practice knowledge and skills. The activities have covered two areas: 'The hydroponic greenhouse at school' and '3D printer in kindergarten and primary school'. The pupils learn to see technology as a means of realising a project and explore new forms of thinking and collaboration. Regarding the kindergarden environment, the first experiment "contructing toys with the 3D printer", involved a 3D printer with the use of the software Tinkercad which assisted the children in sharing and exchanging ideas. Beginning with the observation of geometric shapes, the children were asked to create works of art using recycled materials. These works were then recreated on a interactive whiteboard and subsequently by the 3D printer. In the final phase the children then had the possibility to evaluate their work and propose improvements.

Target group Children from Kindergarden and Primary school

Creation date 2014 - 2020

Licence -

Name/creator Maker@school, the INDIRE (National Institute for Documentation Innovation and Educational Research) project for school innovation

Francesca Palareti, Lorenzo Guasti.

Language Italian

Links indire.it/progetto/maker-a-scuola/

Active Link

SOUND TALES (Italy)

Purpose:
• Identification of a pertinent and imaginative sound commentary.
• Practice of "recording": silence and concentration.
• Discrimination of sounds (cataloging timbres, sound types, "unconventional" instruments).

Description: The "sound tales" project aims to introduce the child to an active listening practice, in which he is the main actor of the soundtrack, according to the Montessori idea of a free and conscious choice.

The children were involved in fixing different sound ideas, which the story proposed in the form of narrative images, through the use of a simple digital recorder (zoom) and, subsequently, of the music editing program "Audacity", in order to create a "database" ready to be used.

The files included sounds, animal noises, song fragments, and small rhythmic sections of solo or consort instruments (idiophones).

Several sound versions have been created for each narrative image, so as to be able to provide different ways of producing sounds of the text, both the more concrete (a blow of a hammer…) and the more abstract ones (a happy surprise…).
Finally the children made a choice, according to what they considered most pertinent, always giving reasons for their choice.

The final result was an audio tale, in which the text, the original music written for the occasion and the sound commentary of the children were mixed together, in order to expand the imagination and the emotional awareness.

Target group Children aged 3 to 6, enrolled on the summer campus of the Santa Croce school, Maria Montessori Children's House.

Creation date 2021

Name/creator Sound tales project

Enrico Bindocci - Santa Croce school, Maria Montessori Children's House

Language Italian

ECEC

Co-funded by the European Union

DIGITAL IMAGES (Italy)

Purpose: The purpose of the research was to see if it was possible to reconfigure children's representation of technology through the use of technology tools to construct digital stories.

Description: The hypothesis on which the research was based concerned the possibility or otherwise of modifying an image of technology as a "passive" instrumentation, similar to television. The work, carried out over two school years, revealed the possibility of intervening in widespread beliefs by changing the approach to digital technologies. The research had the idea of establishing a deep connection between the representation of technology by adults (whether parents or teachers) and the imagery that develops in the minds of children. The hypothesis that guided the research was based precisely on the idea that this representation in fact gave back the image of technology as a "passive" instrumentation, assimilated in some way, for this age group, used mostly as a screen for viewing figures, photographs and, above all, cartoons. This idea of technology, however, was considered potentially modifiable by intervening in schools, proposing educational activities able to return to tablets, smartphones, screens in general, their instrumental role, useful precisely for the design and development of stories similar to those that generally convey, already pre-packaged, for the joy of young users. The two years of research have allowed us to experiment and observe teaching practices related to the production of digital narratives (digital storytelling), carried out through the use of technologies available in the classrooms involved (mainly computers and tablets), and, in two of the classes involved, of a particular technology, the I-Theatre, a system that combines tools for the acquisition of research, images and sounds to software for the development of animated texts, achievable through direct manipulation of the elements on the screen. In fact, the system makes the production of "digital stories", i.e., short animated cartoons that are the product of the children's creativity, made up of stories narrated by them, with their drawings, voices and gestures, captured by the screen on which two-dimensional representations of animals, characters and objects move by drag and drop. The teachers of the 10 schools were, therefore, involved in every phase: from the initial training, to the planning meetings, up to the experimentation and reflection on practices. The research path has therefore included four different phases:
• Phase I - The starting problem and the context analysis;
• Phase II - The digital narrative and instructional design;
• Phase III - Experimentation;
• Phase IV - The dissemination of results.

Target group 400 children from 3 to 7 years old of 10 schools

Creation date 2016-2018

Name/creator

Digital technology in early chilhood education: from representations to digital storytelling practices

Laura Parigi
Alessandra Anichini
Rudi Bartolini

INDIRE: National institute of documentation, innovation and educational research

Language Italian

Links Active link

THE INF@NZIA DIGI.TALES 3.6 (Italy)

Michela Ponticorvo
Raffaele Di Fuccio
Federica Somma

from Natural and Artificial Cognition Laboratory NAC, Department of Humanities, University of Naples

Purpose: Develop innovative learning methodologies and technologies to support curricular educational activities in kindergarten and in the first year of primary school, such as spontaneous or guided exploration, which exploits the central role of touch, manipulation and all five senses.

Description: Children, by now digital natives, are using high-tech devices more and more often, especially for playful purposes, but also linked to school training, as in the case of distance learning.

The Inf@nzia Digi.Tales 3.6 project has experimented with the potential of multimedia applied to the design of new educational activities, such as, at the same time, recovering the principles of spontaneous or guided exploration, the central role of touch and manipulation and the involvement of the five senses through the creation of innovative learning environments for children aged 3 to 6 years.

An example of technology to enhance learning are HABs or Hyper Activity Books. Traditionally, activity books are books designed for goals, such as entertainment or learning, and include interactive content, meaning the child is asked to color elements, write letters, numbers or words, or draw something. For example, the interactive content may be a game, puzzle, quiz, or picture, and the child's natural involvement is used to promote learning.

HABs, experimented in the Inf@nzia Digi.Tales 3.6 project, instead, are exercises that combine digital (PCs, tablets, smartphones) and tangible (objects) elements and integrate teaching/learning models with scientific knowledge on neuropsychological processes underlying learning processes, the enhancement of traditional psycho-pedagogical practices and the use of structured and unstructured multisensory educational materials.

Thanks to a technology that implements augmented reality systems based on RFID/NFC, the child places a "tagged" object on a tablet reader or approaches a reader or a smartphone to the "tagged" object; the signal containing the code of the object is sent to a computer (desktop, notebook, tablet or smartphone) and generates a series of actions from the output devices (sound system, monitor) depending on the game or exercise that is being done.

The scenarios that have been included in the project's app have experientiality as a fundamental matrix and, therefore, the execution of activities that aim at manual and physical interaction with the devices. The exercises to be implemented focus on motor skills, hand-eye coordination skills and spatial organization.

Another area of learning that is particularly stimulated is that of images, sounds and colors. Digital media, based on the enhancement of classical materials, have a natural propensity to allow visual discrimination of objects, shapes and images. The project has developed environments that stimulate different sensory functions, including smells and tangible objects. The Inf@nzia Digi.Tales 3.6 project has proposed solutions in a direction oriented to the multisensory, allowing the learning and discrimination of various types of sounds, noises, colors and tactile stimuli. This modality was developed in the project thanks to the application of the paradigm of tangible interfaces that allow the student to be able to interact with the physical space through their senses. The interaction and manipulation of these objects represent the input of the GUI. The user, by touching the object, produces an effect on the digital plane, that is, in the educational exercise or game itself. Multisensoriality becomes the central development of interaction with the device. The student does not have to simply interact with the screen.

5ᵗʰ PRE-PRIMARY SCHOOL OF THERMI - BLOG
(Greece)

Purpose: Educational scientific tools, blog.

Description: The 5ᵗʰ Kindergarten of Thermi is participating in Erasmus KA1 Personnel Mobility actions until 2023, a fact that gives the opportunity to the teaching staff of the kindergarten but also to the wider local community to reap the benefits of the Erasmus + KA1 program. As part of the actions of this project, school's teachers will have the opportunity to:
• be trained in new teaching methods and tools, to be introduced to innovative robotics and STEAM application programs for pre-school education, and
• become familiar with the production of digital educational material.

All the above, will be carried out with the goal of modernizing the school, implementing innovative actions and upgrading the education provided, in a context that respects the weaknesses of each student, turns them into skills and positively enhances interactions between all its members.

During its participation is looking to support of the school and the wider community. In this blog, everybody will be able to follow the teachers' work (digital creations, robotics activities…), as it will result from the implementation of the program.

Target group Teachers and pupils of pre-primary education-kindergartens

Creation date 2020-2023

Licence -

Name/creator "5ᵗʰ Pre-Primary School of Thermi - blog" - Erasmus+KA1 - Scientific Tools in Pre-Primary School for inclusive Education

Language Greek

Links Active Link 1

Active Link 2

AESOP (Greece)

Purpose: Digital Scenarios Operating Platform for Educational Purposes by Educational Policy National Institute - Greece.

Description: "Aesop" platform was developed by the Greek Educational Policy Institute and is an innovative concrete tool of Development, Design, Writing, Assessment and Presentation of Interactive Teaching Scenarios in a modern and functional environment.

More explicitly, the "Aesop" Platform supports the Design or/and Employment of the existing Digital Material by use of plethora of interactive tools through exploitation of modern Web technologies.

The Digital material can be converted and adapted fully into the Digital Teaching Scenarios' Structure, as the creator is able to employ the available tools separately and combined, using in any case his/her imagination and creativity, matching each time Teaching Goals, Topic Taxonomies, Implementation Phases etc. The Platform comprises many Exemplary Digital Scenarios implemented by scientific committees and therefore guaranteed in terms of Scientific and Educational Proficiency. Additionally, it comprises a great number of assessed scenarios created by the wider educational community that have been evaluated as Best and Adequate.

The evaluation of Best and Adequate Digital Teaching scenarios was realized following a double assessment of each submitted scenario by the wider spectrum of the educators' community. The scenarios that were pronounced as Adequate were marked with 50-69,5 points while those pronounced as Best were marked with 70-100 points. Best scenarios were awarded by the Ministry of Education on 03.11.2015.

Experienced teachers with approved high qualifications, assessed scenarios providing full documentation of their judgement, by employing the completed scenarios' assessment environment. The assessment was realized by two anonymous assessors randomly selected by ballot, to pronounce best and adequate scenarios uploaded onto "Aesop" Platform, following a continuous dynamic procedure of submissions (by interested teachers) and assessment (by a registered pool of assessors).

The Exemplary Scenarios implemented by Scientific Committees of Experts as well as the assessed as Best and Adequate Scenarios fulfil the required Scientific and Pedagogical prerequisites in terms of their employment in the learning and teaching procedure.

The "Aesop" Platform is entirely connected with the Greek National Aggregator of Educational Content for Primary and Secondary Education ("Photodentro"). Therefore, every interested party can search for material regarding the Digital Interactive Teaching Scenarios via the "Aesop" Platform or Digital School.

As of December 2015, every teacher can register in the Platform and design/create up to 10 Digital Teaching Scenarios to employ in his class. These scenarios are not uploaded onto the Platform (given the lack of evaluation by the assessors' committees), but teachers can implement them all the same, when designing digitally their classes or teaching.

In summary, the "Aesop" platform is a valuable innovative concrete digital system of Development, Design, Assessment and Presentation of Scientifically and Pedagogically Certified Digital Interactive Teaching Scenarios. In parallel, it also consists of a designing tool of Digital Interactive Scenarios to be employed by teachers of the wider spectrum of the educational community.

Target group Teachers and Educators of Early and Pre-school up to Secondary Education

Creation date -

Licence creativecommons.org/licenses/-by-nc-sa/3.0/gr/

Name/creator "Aesop" – Advanced Electronic Scenarios Operating Platform – Educational Policy Institute – Greece

Language -

Links aesop.iep.edu.gr/#about

aesop.iep.edu.gr/senaria

PHOTODENTRO LOR (Greece)

Purpose: Photodentro LOR is the Greek National Learning Object Repository (LOR) for primary and secondary education. It hosts learning objects, which are small, self-contained (semantically and functionally autonomous), reusable units of learning resources, tagged with educational metadata. Photodentro LOR represents a large scale effort at a national level; it is however only one component of the Photodentro infrastructure that is being implemented to support digital learning resources in primary and secondary education in Greece.

Description: Photodentro LOR supports browsing, free text search, and faceted search, allowing users to narrow search results by applying multiple filters, such as learning resources type, educational context, student age, subject area, thematic classification, etc.

Photodentro LOR currently hosts more than 4,000 learning objects, organized in thematic or other collections. Most of them have been developed by around 120 qualified teachers, in ten domain-specific workgroups, in the process of enriching Greek textbooks with digital interactive resources. Each group operated under the supervision of a coordinator, an academic with significant domain and pedagogical expertise, to ensure quality. In an attempt to make the most of previous publicly funded projects, the next population phase of Photodentro LOR focuses on open learning objects that can be extracted from existing educational software and learning scenarios developed during the last decade.

Almost all learning objects are "click-and-play", i.e. they can be directly reproduced in web browsers. Regarding their type, they include explorations and inquiry-oriented activities, dynamic simulations and experiments, educational games, presentations, interactive exercises, interactive maps as well as simple learning assets.

Photodentro LOR implements the Greek National Strategy for educational content, which - among others - promotes the use of open educational resources (OER) for schools. All learning resources are freely available to everyone under the Creative Commons' Attribution-NonCommercial-ShareAlike license.

Photodentro LOR name has been carefully selected to convey the message of what Photodentro is: a repository that contains "knowledge"; it is alive and grows like trees (in contrary to archives); and it is Greek. The word "Photodentro" means "Light Tree", and it is taken from the title of the poetry collection "The Light Tree and the Fourteenth Beauty" (1971) of the Greek poet Nobel prize winner Odysseas Elytis.

Target group Teachers, students, parents, and all interested in Early and Pre-school up to Secondary Education

Creation date 2012

Name/creator Photodentro OER repositories have been co-financed by the European Union (ESF) and the Greek State in the context of the "Digital Educational Platform, Interactive Books, and Learning Object Repository" program (#296441) of the Greek National Strategic Reference Framework (NSRF) 2007-2013 (Operational program Education and Lifelong Learning); they are currently being expanded and improved in the context of the "Digital School II: Expanding and Exploiting the Digital Educational Platform, the OER Repositories and the Interactive Textbooks" program (#5001312) of the NSRF 2014-2020 (Operational Programme Human Resources Development, Education and Lifelong Learning 2014-2020). Program Beneficiary (program coordinator & implementer): Computer Technology Institute and Press – "DIOPHANTUS" (CTI) (www.cti.gr).

Language Greek

Links Active Link

PHOTODENTRO UGC (Greece)

Purpose: User generated content: educational scenario-lesson plan.
Pre-school education - Environmental Education/Education for Sustainable Development.

Description: This practice is an educational scenario created within the context of Training in Distance Learning. It focuses on the understanding by children, of the importance of water, as an indispensable element of our environment and how valuable it is for human existence. Is also involves other cognitive areas and disciplines such as Sciences, Language, Mathematics, Art, and Information Technology. It is appropriate for the pupils' cognitive level, it is playful, it integrates New Technologies in the learning process and promotes self-action by linking school life and routine with everyday life. school life and routine with everyday life.

Class: Kindergarten.

Lesson/Learning Object: Children and Physical Sciences.

Expected Learning Outcomes: Understanding of how valuable natural element water is, its participation in the cycle of life, its different states (solid, liquid, gaseous), to cultivate scientific skills such as observation, experimentation, to realize the value water has in social context.

Prerequisite knowledge by children for implementation of lesson plan/scenario: To have previously approached subjects relating to the concepts of the natural environment, to be familiar with the methods of observation, of recording their observations, or their hypothesis, checking of their hypothesis, of experiments, of deducting conclusions and formulating a general truth etc., and finally, to be familiar with the use of the suggested digital platforms, tools and their function.

Target group Teachers, pupils in Early and Pre-Primary Education (4-7 years old)

Creation date 2021

Licence Creative Commons Attribution-NonCommercial-ShareAlike Greece 3.0

Name/creator Water, source of life/ ZELIACHOVA VASSILIKI (Creator, Pre-primary school teacher))

Language Greek

Links Active link 1

Active link 2

ECEC

Co-funded by the European Union

TONIEBOX (Germany)

Purpose: • to create a way for children to experience storytelling in a digital age that stimulates their imagination while being educational and fun but also a screen-free experience.

• development of mental processes (language, attention, memory, imagination, etc.) in order to integrate children with special educational needs into the educational process.

Description: TONIE BOX - is an audio system for kids that plays stories, songs and more. It's soft, snuggable and portable, so you can take the storytime, song and musical fun with you wherever you go. The Toniebox comes to life when paired with our whimsical collection of Tonies: hand-painted characters with hours of stories to tell, worlds to explore, and songs to sing along with.

A music box with different toys is useful for a child's development and learning. There are two types of interactive toys (figurines) that can be placed on the box. Some toys are filled with audio and music content selected by the manufacturer, others (creative) - allow you to place your own narrative or selected content for up to 90 minutes. This can be done by uploading the desired content to the manufacturer's server via the smartphone. The toy is attracted and fixed with the help of a magnet, which allows the child to accurately coordinate hand movements. The two earbuds on the box allow you to amplify and mute the sound when you press them, which requires the precision of the child's coordination of the fingers.

Teaching program:
• Concentration of attention; • Curiosity is encouraged; • Stimulates the imagination by avoiding screens;
• Development of auditory and visual memory; • Eye-arm coordination training; • Exploration of ambient sounds;
• Language and listening skills are developed; • Training of fine motor skills; • Emotion management; • Relaxation.

Marijampole kindergarten „Ruta" uses toniebox in its activities as an educational tool and shares several examples.

Activity topic: „Recognize the sounds of nature".

Objective of the activity: Differentiate the sounds heard in the environment (into natural sounds and human-made sounds).

Tools: Tonie box.

Target group Early/preschool children (2-8 years old)

Creation date 2014

Licence Toniebox® is registered trademark of tonies GmbH.

Name/creator The creators of toniebox® - Patric Faßbender and Marcus Stah

Language German/English

Links tonies.com/en-gb
rutald.lt/kovo-menuo-be-patyciu

Active Link 1

Active Link 2

Active Link 3

Active Link 4

Video
www.youtube.com/watch?v=7xHM6C-Sf04

STOP THE VIOLENCE IN PRE-PRIMARY SCHOOLS (Greece)

Purpose: Open Educational Practice in resource-based learning.

Description: Taking into consideration the necessity of engaging pupils in finding solutions for the phenomenon of violence in schools - bullying, there was an educational intervention planning by ICT exploitation. The reason for selecting ICT for implementing this intervention lies within the fact that it creates significant learning motives and encourage the organization of activities in which children are actively involved.

The implementation framework of ICT, in this intervention was structured upon three interdependent components. In further detail, ICT were handled as follows:

• **Learning-cognitive tool:** Children were encouraged to make use of a digital camera to capture the problems in their immediate environment, software of conceptual mapping to record their ideas, internet and material from Photodentro Repository, in order to investigate multiple sources of information, and reflect upon the dimensions of the phenomenon.

• **Methodology of resolving problems:** Creation-Expression software and digital comics were used to process data, to plan, to experiment and find solutions within a context of communication and cooperation.

• **Social phenomenon:** Digital narration that was expressed through the use of Windows Movie Maker and the publication of the digital story-scenario of the children in social media, facilitated the understanding of the ICT role to promoting ideas in modern society.

Target group Teachers, pupils in Early and Pre-Primary Education

Creation date 2015

Licence Creative Commons Attribution-NonCommercial-ShareAlike Greece 3.0

Name/creator STOP THE VIOLENCE IN PRE-PRIMARY SCHOOLS/MELLIOY KYRIAKI (Pre-primary teacher-script writer)

Language Greek

Links Active Link 1

Active Link 2

ECEC

Co-funded by the European Union

EDUCATIONAL ROBOTICS (Greece)

Purpose: Students work with clear instructions that allow them to carry out guided explorations, based on detailed steps. Students initially investigate robot motion and how it changes based on input received through various robotic components (sensors, actuators, building blocks). Students then move on to more complex activities. In addition, the children modify the parameters of the robotic movement (duration of the movement, speed of the movement, direction of the movement), controlling the general movement of the robot. All this is done as a team, promoting the active participation of students, fostering cooperation and developing the free expression of ideas. Thus, the educator acts as teamwork coordinator, supervising the work of each group and intervening when necessary.

Description: Students start from the basics of the construction and Programming of robots, to then move on to trying out, exploring and choosing the best procedures for solving problems. For example, children tackle educational scenarios associated with the problems of everyday life, or enter into challenges such as participating in robotics competition and striving to achieve optimal motion of their robot.

Target group Primary education level
Creation date -
Name/creator -
Language English/Greek
Links Active link

ECEC

Co-funded by
the European Union

THE SKATE PROJECT (Belgium)

Purpose: Transfer skills and knowledge about assistive technology to the accompaniment and the education of young children. • Mapping, assessment and innovative approaches on inclusive technology for ECEC. • Guidelines Inclusive classrooms for ECEC teachers. • Toolkit: competency framework, learning programmes and assessment methodologies. • Literature review • Videos.

Description: The SKATE project aims to impact on the quantity and quality of inclusive early childhood education in the countries involved in the project (and beyond), by generating knowledge on the appropriate use of digital and mostly innovative technologies in early childhood education and by disseminating this knowledge through multiplier events and publications.

The project responds to European ECEC (Early Childhood Education and Care) teachers' needs to be supported in gearing innovative technology as resource for inclusive education and the SKATE project will deploy innovative resources from the field experience of Assistive Technology centres, EU and national policies fostering the take up of digital technologies in inclusive education, and the wide experience of participating organisations.

Combining these aspects, the SKATE project will be pursuing and achieving the following objectives:

To foster new skills and knowledge of teachers/educators for the appropriate use of technology/digital solutions to create an increasingly inclusive learning environment (but not technology as a goal in itself and at all cost).

To increase the quality of ECEC as delivered by the partners and other schools by promoting early intervention with appropriate assistive technology for children with special needs or at risk of exclusion (leaving no one behind).

With the involvement of local ECEC services in the testing phases and the feedbacks collected from ECEC teachers, SKATE partners will realize the following outputs:

The uploaded videos include the following topics: • A large touchscreen to practice preschool skills in an inclusive way • The cinema: shared visions • Go Talk 20+: inclusive communication in class • Assistive Technology and Communication: A Parent's Experience • Novafon: "Local vibration therapy" • The bright panels • Gorlo & Todt Joystick to teach preschool skills on a laptop • Assistive Technology for learning and communication in inclusive education.

Assistive technology: Sharing good practice • Assistive technology: Empowering students to achieve their best • The vibrating platform: "touch the sound" • How to increase the accessibility of a laptop for a child with special educational needs?

Target group Educators and teachers

Creation date 2020

Licence Creative Commons Attribution-NonCommercial-ShareAlike Greece 3.0

Name/creator Skills & Knowledge on Assistive Technology in Early childhood inclusive education

Language English

Links skateerasmus.be

Photo, video instagram.com/skate_projecterasmusplus

TOONTASTIC 3D (-)

Purpose: Animation app/tool.

Description: Toontastic 3D is a playful storytelling app that scaffolds the creative writing process and empowers kids to create their own animated cartoons. Toontastic works on phones, tablets, and select Chromebooks. You can download the app on the Google Play Store and Apple App Store.

While Toontastic was not specifically designed for schools, there are a lot of educators over the years that they love how the app sparks their pupils' imaginations and uses the Story Arc to help frame their writing. Pupils use the app for creating everything from book reports to news broadcasts and foreign language skills. It is mainly designed to be used by children between 6 to 12. Children can draw their own characters and settings, customize existing Toontastic characters, and even add their faces on characters to themselves in the story. It takes about a minute to make a one-minute scene and you can add up to six scenes per cartoon.

Toontastic can also be used by educators to create tutorials, explain projects, or even do morning reports.

A Story Arc is a scaffolding tool that helps you map out a story's plot. Whether they're learning Language Arts or Science, children can practice communication skills using story arcs as formulas for convincing arguments.

Short Story (3 parts) BEGINNING Where you introduce the characters and the setting of your story MIDDLE Where something happens, like a problem END Where your story wraps up.

Classic Story (5 parts) SETUP Where you introduce the story setting and characters CONFLICT Where you create a problem for your characters CHALLENGE Where you make the problem even more difficult CLIMAX Where you help the characters solve the problem RESOLUTION Where you show the problem has been solved.

Science Report (5 parts) QUESTION Start by asking a research question. What do you want to know? HYPOTHESIS State your hypothesis. What do you think will happen? EXPERIMENT Explain your experiment. What data are you collecting, and what's your control? RESULTS Analyze your results. What observations did you make? CONCLUSION Make a conclusion. What did you learn, and do you have any more questions?

Privacy&Safety. The cartoons you create in Toontastic can include personal information (photos and voice). This data is saved locally in the app. However, Toontastic does track general usage statistics (like "how many cartoons were created worldwide today") to help improve the app and inform future development. This data is collected in accordance with Google's Privacy Policy. Toontastic doesn't require an account or login. Cartoons are not shared with Google, but saved locally in-app and on device unless you delete or export them to the photos app or library on your device.

Target group Children, educators
Creation date -
Licence -
Name/creator -
Language English
**Links** toontastic.withgoogle.com

ECEC

Co-funded by the European Union

DISCOVERING DINOSAURS (Spain)

Purpose: It combines the study of dinosaurs and their characteristics through new technologies, through a technological device that combines virtual elements, allowing the creation of a mixed reality.

Description: A dinosaur was given to each child, investigating its main characteristics. After that, we began the search for the different animals in 3D, (in the case of not finding any species, we had the possibility of recreating it in 3D using a plastic figure and using the 123D Catch application). Subsequently, the exhibition of the work was carried out by all the students, supporting these, in the images of Augmented Reality.
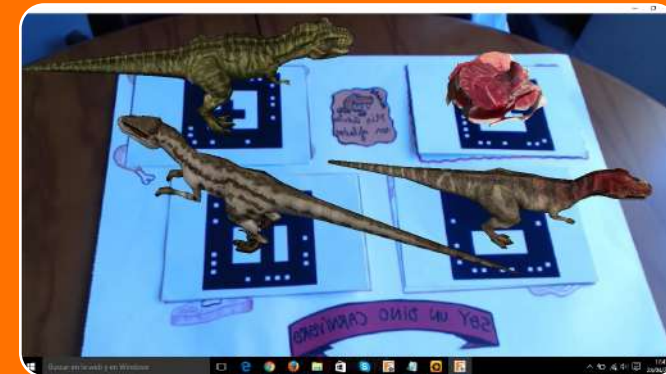
Target group For boys and girls from 5 years old

Creation date -

Licence -

Name/creator -

Language Spanish

Links educarconsandra.blogspot.com/2019

ECEC

Co-funded by the European Union

THE PRO LEARN PROJECT (Poland)

Purpose: Educational Toolkit for Students - educational games and tasks Proj.no: 2019-1-PL01-KA201-065726.

Description: The aim of this toolkit is to develop cognitive functions and support students in the development of effective learning skills, using resources and the full brain potential. It contains a unique set of short exercises to support/develop cognitive processes favourable effective learning and exercises that develop various learning techniques and methods. The exercises can be used by students aged 6-14. The exercises are divided into two age-groups: 6-10 years old and 11-14 years old. Such division is dictated by the level of intellectual development of students and the need to adjust the level of difficulty and the scope of tasks/exercises. 30 tasks/exercises / short clips are prepared for each age-group. The toolkit is developed by a team of educators, psychologists, graphic designers, IT specialists and programmers and it is attractive for children.

The internet platform contains games and tasks takes the form of puzzles, labyrinths, tasks developing spatial imagination, tasks requiring concentration or visual-motor coordination. These exercises include the following exemplary ones: • solving logical and mathematical puzzles; • adjusting on the screen of a smartphone/tablet elements to create an image; • finding strings of the letters indicated in the task; • counting on three-dimensional images for instance how many squares were used to build a given structure; • fast counting of indicated digits, among many displayed on the screen; • fast response and pressing e.g. on emerging elements; • finding the way to the goal - mazes.

The student's performance of these tasks stimulates the brain's potential - the development of cognitive functions of children and adolescents. The idea of this solution is to develop through playing, using modern technologies and a smartphone or tablet. In addition, the application contains short videos (2-3 minutes cartoons) with good advice on effective learning. After watching them, the student gets a task to do - for example, implementing the clues from the film into the learning process.

Target group Primary education level

Creation date -

Name/creator The Pro Learn Project Erasmus+ KA2 - Educational Toolkit for Students - educational games and tasks

Language English

Links prolearn-project.eu/for-students

exercises.prolearn-project.eu

exercises.prolearn-project.eu/games-6-7

Photo video exercises.prolearn-project.eu/games-6-7

ECEC

Co-funded by the European Union

MORTIMER AND THE DINOSAURS (Spain)

Purpose: Children learn about the different types of dinosaurs through this interactive app, which also helps them improve their reading skills. They can also play mini-games that promote their problem solving and creative thinking skills though story telling and puzzle solving activities.

Description: Interactive story that teaches children about the different species of dinosaurs through story-telling. Children can create their own story, play mini-games that promote their critical thinking skills and creative skills through gamification.

Target group Kids 4 and over

Creation date -

Licence -

Name/creator -

Language Spanish, but available in multi-language (English, German, French, etc.)

Links chiquimedia.org/es/apps/mortimer

READING WITH LEO (Spain)

Purpose: Its goal is to help children develop their oral and written language skills through play and positive reinforcement.

Description: The virtual assistant is called Leo and he teaches children to read and write. Developed with the aim of helping children develop oral and written language through gamification. It also favors the improvement of their points of articulation in speech, acquiring phonological awareness, and understanding reading and spelling. During the game with Leo, it is possible to select the phoneme or the letter that contains the words to present. This helper offers a support gesture for each of the syllables that make up the word, or two gestures in the case of mixed syllables, with diphthongs or consonant clusters.

Target group Kids from 3 years old

Creation date -

Licence -

Name/creator -

Language Spanish, but available in multi-language (English, German, French, etc.)

Links chiquimedia.org/es/apps/mortimer

ECEC

Co-funded by the European Union

THE KIKUS METHOD (Germany)

Purpose: It is a teaching principle that is embedded in the school curriculum and can be easily combined with other language enrichment strategies. It links language teaching with everyday linguistic enrichment.

The KIKUS approach offers an easy, practice-oriented, and effective model for helping children learn a second language (e.g., German) while also supporting the home language.

Description: KIKUS Language Course for Children.

The KIKUS Course is a systematic language enrichment module which is designed for use in small groups. The Course is presented by a qualified KIKUS Course Leader, e.g., a trained teacher who has completed the KIKUS training. S/he chooses topics of daily living, e.g., family, clothing, food, etc. and uses these to teach language playfully. Vocabulary, grammar, and socio-linguistic communication patterns are taught and practiced in a child-friendly way.

The entire school is the central partner for developing a second language. This training includes a Basic Seminar, an Advanced Seminar as well as hands-on practical experience.

This practice takes place in kindergarten and primary school throughout the school year.

The aims and objectives of Kikus method are: Professional and Sustainable Language. Development in the Educational Language (German as a Second Language): Efficient language support can only be provided by educators and teachers who have a sound knowledge of language acquisition and the specifics of second language acquisition or acquisition of multilingualism. Likewise, knowledge and reflection on other languages and cultures are of central importance.

Early Support at Preschool and Primary School Age: To increase the children's chances of a successful education, the support must begin (at the latest) at the age of 3 years. Early support leads to a reduction of public expenditure both for subsequent special support measures and for the prevention of parallel societies.

Target group Kindergarten and primary school teachers and pupils aged from 3-12 years who learn German as a Foreign (Second) Language. Especially, children from a migrant background. The aim of this method is promoting German in children who come from a non-German background in childcare facilities and schools.

Creation date -

Licence -

Name/creator -

Language German, English, Spanish

Links kikus.org

Photos videos

Active photo link 1

Active photo link 2

Active photo link 3

www.youtube.com/watch?v=uX2YJPC40QY

ECEC

Co-funded by the European Union

TINTARANTIN (Spain)

Purpose: Tintarantín is a software and musical pedagogy method to learn to play the piano and read sheet music, from an early age. Thought from the child's mind, each note has an associated color and the keyboard also incorporates those colors with stickers. The software installed on the computer controls at all times what the child plays through his digital piano.

Description: The program corrects most of the common mistakes of the student, without the teacher having to intervene, so learning becomes fluid and without criticism. Plus, learning to play the piano is easy and fun with software that looks like a game, but is actually an accelerated learning system. TinTaranTin presents the most innovative technology applied to music learning. It is adapted to children's minds because we use shapes and figures known to children, with colors, and the score constantly corrects what the child does so that it is not necessary for the teacher to constantly correct him, something that motivates children because they feel protagonists. This program has four plans aimed at children from 3 years old:
1. Tin Baby
2. Tin Free
3. Tin Pro
4. Tin Big.

Target group Kids from the age of 2

Creation date -

Name/creator -

Language -

Links www.tintarantin.com

CODA GAME (Sweden)

Purpose:
The main areas worked on are:
• Problems resolution
• Logic
• Computational thinking
• Creativity
• Game Design and Development
• Pattern recognition
• Algorithmic thinking
• Basic introduction to STEAM topics.

Description: Coda Game is a game that allows children to build their own game and build commands inside the game. That way, they learn the basic fundaments around coding though gamification. The create the games with visual code blocks, which also remove language barriers. They will learn about game commands and mechanics.

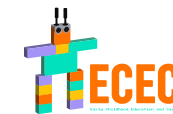**Target group** For kids aged 4 and over

Creation date -

Licence -

Name/creator -

Language Multi-language

Links Google Play active link

Video Active Link

AISTEAR SIOLTA PRACTICE GUIDE (Ireland)

Purpose: Resources for educators.

Description: In Ireland there are two early childhood frameworks-Síolta and Aistear. While similar in many ways, Síolta is concerned with all aspects of quality in early childhood whilst Aistear focuses specifically on curriculum.

Both Aistear and Siolta highlight the importance of supporting children's holistic development including STEM (Science, Technology, Engineering and Maths). The Aistear Siolta Practice Guide provides information and guidance on supporting children's engagement with STEM. There are 2 different resources, one provided for supporting children's learning experiences from Birth to 3 years and a second one for children from 3 to 6 years.

1.Birth-3 years Supporting children's language development is fundamental to their overall development and, equally, using the language of STEM is a key role of the adult in promoting children's understanding of the world through STEM. Adults noticing, naming and supporting babies and toddlers to understand the language of STEM can be achieved by introducing relevant vocabulary through everyday experiences such as, for example, block play, playing with water or sand, planting seeds or construction, all of which can be maximised to introduce children to STEM education.

In relation to technology, it is recommended that babies and toddlers under the age of 2 do not have any access to screens, including TVs, tablets and other touch screen devices, as their use may pose health risks. However, there are other forms of technology that can be suitable for use with young children. For example, digital cameras can be used by toddlers both indoors and outdoors to enable children to capture what is important to them. Digital cameras can be introduced to toddler groups slowly, one child at a time. Ensure that devices are robust, intuitive and suitable for little hands. Allow the children to explore taking and reviewing images and videos and discuss what the children have captured. Role-play supported by the use of technology can encourage mathematical thinking, experiences and language. Scenarios such as the shop, the library and the doctor's surgery can engage children in making lists, 'counting', scanning, dialling numbers on phones and 'typing' on the computer keyboard. Helping children to see the use of technology in context supports their understanding of technology's role in helping us to do things we want to do, rather than seeing technology as an end in itself.

2. 3-6 years Digital technologies are an important (but not dominant) part of children's lives. Supporting children's language ability so that they can explain why they want to use a particular technology is central to their development of a critical attitude to technology in everyday life. Children can be supported to explain how and why they use a wide variety of technology through.

EBRU ART THERAPY (Turkey)

Purpose: Art therapy.

Description: Ebru art of marbling is commonly referred to as the music of colours, has a soul-soothing ability. Ebru art teaches one the skill of developing patience. It has been proven by experience that ebru has a therapeutic essence and contributes to improving aesthetic sensitivity, communication, using time correctly, motivation, creativity, patience, discipline, adaptation, self expression and yielding positive results when coping with problems such as stress, instability and anxiety.

Ebru art of marbling is a tool used in the game and/or educational process. The paint creates an image on the surface of the condensed water. Paint is sprayed on the background to create a background and special sticks are used to draw a clear image. Thanks to the unique method, an imitation of a marble pattern is created, which can later be transferred to paper.

Art making offers a very natural form of communication for most children. As such, art therapy is often considered useful in helping children with a variety of challenging presentations such as personality and emotional disorders, speech and language disorders, childhood trauma, abuse and deprivation, grief and loss.

Some of the main benefits to using an art therapeutic approach with children include: • Emotional Safety - it can offer children a safe way to share their story in a non-confrontational manner. • Art Space - the actual space can offer children a place to explore, experiment, test boundaries, make a mess, let go, process unconscious and conscious material and reflect it back in an acceptable manner. • Metaphor - the use of art materials also lends itself to metaphor and symbolic language, and can be a very powerful way for children to externally express their internal feelings and sensations. Having the opportunity to externalise these feelings in a safe therapeutic space is not only playful but also allows insight into a child's unconscious world, which would otherwise have remained hidden. • Tangible Reference - Creating something tangible within the sessions allows the experience to be retained and referred to later in the therapeutic process if necessary.

Ebru art therapy is used as a practice in Marijampole kindergarten „Ruta".

Activity topic: „The excitement of emotions".

Objective of the activity: to release emotions with the help of colors.

Tools: Ebru art therapy.

Results of the activity: • Develoopment of imagination ande creative thinking; • Attention; • Emotional background optimization; • Therapeutic benefits; • Buildind self-confidence; • Development of communication and collaboration skills.

Target group Early/preschool children (2-8 years old)

Creation date -

Licence -

Name/creator Ebru art therapy

Language English

Links turkisharts.com/tag/ebru-lessons

www.bodymarbling.eu/workshops.html

Active Link 1

Active Link 2

Active Link 3