



October 2018

Newsletter #2

**CASE has been funded within the framework of the
European Union Erasmus+ programme**





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Creativity Art & Science in primary Education



The CASE project relies on an understanding that scientific inquiry must be known more as an integral part of daily life and less as a faraway myth occurring in isolated institutions. In our increasingly knowledge-based economy, education systems need the imaginative force of culture, and the curiosity that comes from cultural expression, in order to realize Europe's creative scientific potential. Currently, education policymakers all too often narrow teachers' focus to lists of facts and formulas, covering information in a way does not reach deeply enough below the surface. Rather than fostering curiosity, which is much more important in the long term than rote memorization, this approach often causes students to "tune out". Enhancing teacher skills, strengthening their ability to motivate innovation and creativity is thus crucial. It is precisely the enrichment of the creative elements in Inquiry Based Science Education as an integral part of such a system, based on a wealth of existing European knowledge, which is the cornerstone of the CASE project.

The issue contains photos by:

- ◇ CASE (website & events photos)
- ◇ Pixabay (cover)

Visit CASE website: <http://www.project-case.eu/>

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Implementation of CASE pilot activities 2018 - 2020 is on!

After a most successful summer school in which 22 participants (affiliated from the CASE partners but also Erasmus + grantees) from 6 European Countries got familiarized with the four well tested case studies for creative science inquiry, namely Learning Science Through Theater, Puppetry and digital narratives and story-telling, for primary schools, the time of implementation for CASE pilot activities has come.

The coordination of the implementation activities in total will be performed by Ellinogermaniki Agogi that will supervise the implementation process during the life cycle of the project. However, each partner will be responsible, as a national coordinator, for the implementation of CASE pilots in its country, in collaboration with Ellinogermaniki Agogi. The implementation activities comprise of 18 CASE pilots in total. Each of the 5 participating countries in the project will realize 3 pilots of choice cases during the 2nd (2018-2019) and the 3rd year (2019-2020) of the project, with the exception of Greece where 6 CASE pilots will take place. More specific 2 pilots conducted by EA, 2 by AUTH and 2 by SV. The cases pilots will be implemented by the national ambassadors of the project in its country – i.e. the affiliated to the project partners, participants of CASE Summer schools.

The structure and the time plan of the implementation is displayed below.

During the 2018-2019 school year the 1st phase of the implementation process will be in progress. The selected cases (for implementation) per partner are the following:

HVL (Norway)

- Learning Science through Theatre.
- Learning science through Puppetry.

- Learning science through digital narratives

EA (Greece)

- Learning Science Through Digital Storytelling

AUTH (Greece)

- Learning science through digital narratives

SV (Greece)

- Learning Science Through Theatre

KU (Lithuania)

- Learning science through digital narratives

SJW (The Netherlands)

- Learning Science through puppetry

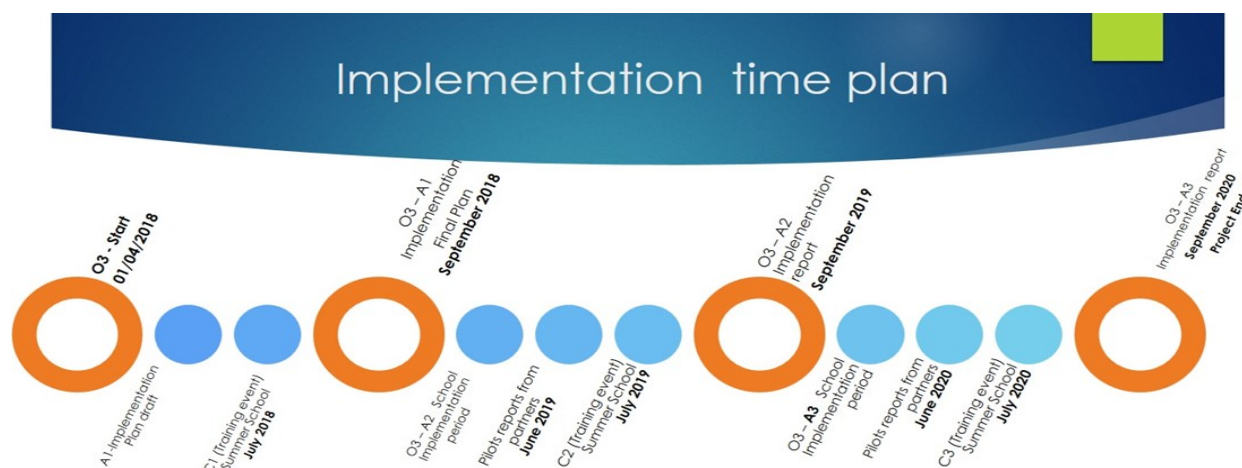
DCU (Ireland)

- Learning Science through Puppetry
- Learning science through digital narratives and storytelling.

The first phase of the implementation process will be completed in September 2019 with the implementation report. During the second phase of the implementation (2019-2020) the same procedure will be followed. The implementation process will be completed in September 2020 with the implementation report of the second phase which also will be included in the updated implementation plan. It is expected that in the pilot activities, will be involved at least 100 teachers and 900 students.

If you are interested to take part in CASE implementation activities and join the CASE community, please visit the following page on the project's website: <http://www.project-case.eu/join-case/>

And contact the National Coordinator



Inquiry and Design Based Learning

Written by SJW, Photos CASE

"In CASE all we do are examples of Inquiry Based Learning and Design Based Learning"

While Inquiry Based Learning is similar to Design Based Learning, there are a few differences. The aim of Inquiry Based Learning is the collection of knowledge. Design Based Learning always starts with a problem or necessity and the aim is to design something. In many cases Inquiry Based Learning and Design Based Learning are intertwined and overlap, in other cases, depending on the theme, one of both cases will be dominant. Inquiry and Design Based Learning will help children develop many different competencies that are related to the way researchers work.

Within Inquiry and Design Based Learning children go through different phases. These are the steps that are described in Inquiry Based Science Education (IBSE):

Phase 1: Generate curiosity, inquire eliciting activities

Phase 2: Active investigation

Phase 3: Creation

Phase 4: Discussion

Phase 5: Reflection

In each process of Inquiry and Design Based Learning, children will experience these phases with their teachers.

Van Graft e.a., 2007

Ben-Horin, 2014

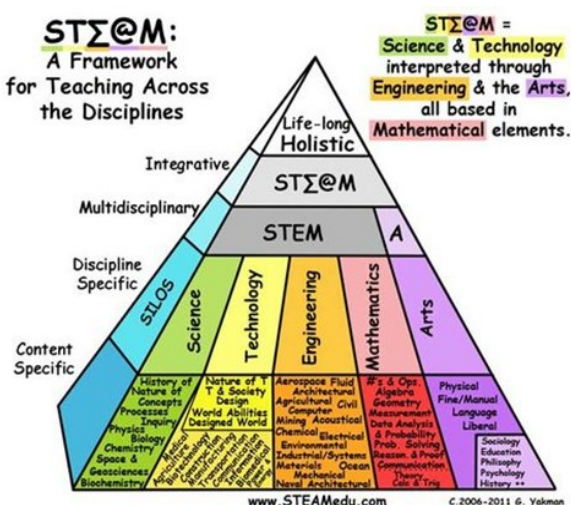
→ STEAM education

STEAM education is an example of Inquiry and Design Based Learning

In ancient Greece, technology and art were closely connected. It is probably not a coincidence that we are looking for a link between these elements again. The Maker's movement, in which art and technology lead to new designs is an example of such a quickly developing concept. STEAM education is another example of this.

STEAM is an abbreviation: S for Science, T for Technology, E for Engineering, A for Arts and M for Mathematics. It is a mix of science and art subjects. The STEM-subjects have been an existing combination for some time. In 2006 secondary school teacher Georgetta Yakman decided to add the A for Arts to her STEM-classes. This proved to be very successful, students were more motivated and higher grades were achieved. Ever since, STEAM has been gaining ground in the educational sector. All CASE subject fields are examples of STEAM education. Because what is the Earth without Art?

STΣ@M:
A Framework
for Teaching Across
the Disciplines



Parts of this article will be published in the book 'Inquiry Based Learning: Write A Science Opera – guidebook'. Available March 2019.



Irma Smegen – Speel je Wijs www.irmasmegen.com

CASE summer school 2018

Written by SV, Photos CASE

In the framework of the CASE (Creativity, Art and Science in Primary Education) project funded by the Erasmus+ programme of the EU, a Summer School took place on 8-13 July in Marathon, Athens, Greece. The CASE Summer School 2018 was a 5-day intensive course that introduced 4 case studies for creative science inquiry in the classrooms of primary schools. It elaborated a methodology that regards teachers as agents of change and aims to empower their profession with skills and competencies that will enable them to widen their teaching capabilities by incorporating creativity and art in science education.

Base upon a robust didactic methodology,

Define the Cases you 'll start with,

Align your contents with the recent EU challenges,



Bring together motivated teachers from all over the world to embrace the engaging techniques

22 primary school teachers, education professionals, science communicators and artists from across Europe gathered on 8-13 July in Marathon, Greece in order to enhance their teaching capabilities. Participants were introduced to the IBSE methodology and assigned to train on the three Cases:



Learning Science Through Theater



Learning Science Through Puppetry



Learning Science Through Slowmation



Learning Science Through Digital Storytelling

Through a collaborative approach all groups cooperated in order to develop and present a final performance on a scientific theme, integrating aspects of all cases: theatre, puppetry, slowmation, digital narratives and enriching it with creative approaches on music and choreography. During the 5-day intensive course, social activities were also organized such as a visit to Cape Sounio and the Acropolis at the historical city centre of Athens.

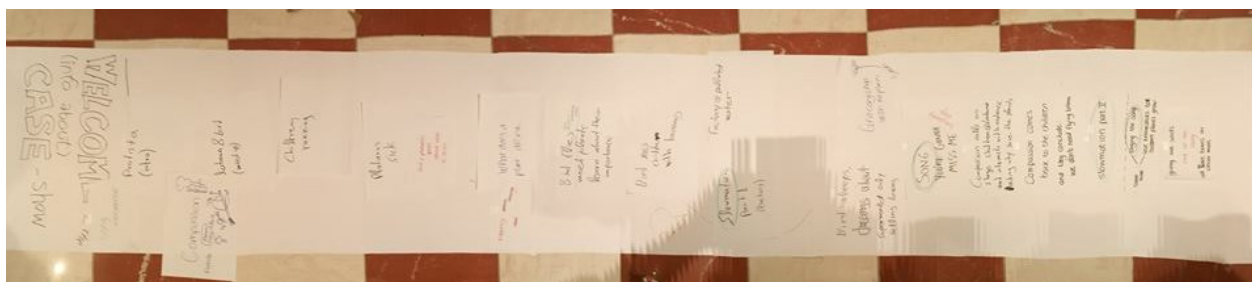
The success of CASE summer school 2018 is something to be seen in the upcoming year, where the enthusiast participants will transfer and implement, within their school environments, the innovative approaches they've been exposed to.



In this first Summer school that was implemented, Innovation—Creativity & Science constituted the guiding steps to instill in the teachers the STEAM motivation and transform them into agents of change. The consortium's motivation after the positive remarks remains high on elevating the projects success.



After the implementation of the 2018 edition, another Summer School is to be organized in July 2019.



Summer school with arts and science

- letter from an enthusiastic educator -

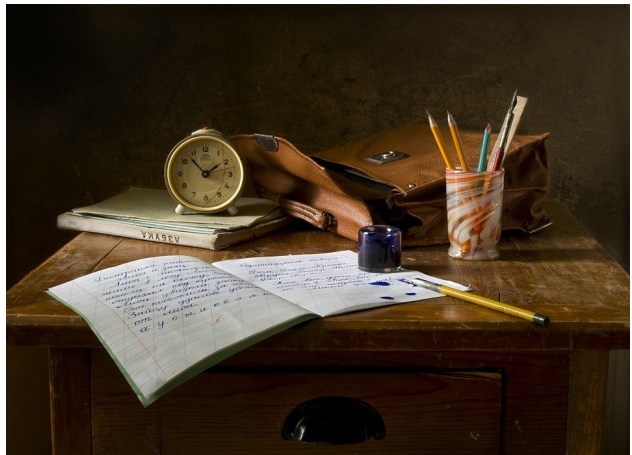
Summer vacation is always full of impressions and experience. I am very grateful that I had the opportunity to participate in the CASE Summer School in Greece, where contemporary educational ideas and methods were presented for participants. It was very interesting to stay together with a lot of teachers from different countries and to find something new and practically valuable for teaching primary school pupils.

During the CASE Summer School four creative science inquiry cases were presented. Since I am the primary school teacher, I loved every case that was presented for us. Dolls that were created by colleagues were very impressive. Such educational aid really excites the curiosity of children when it comes to examining scientific issues, as well as develops children's creative and critical thinking. I really liked that during the classes teachers used the "Icebreaker" method, which allowed participants to relax, get into roles, and to make decisions in a creative way, to experience good emotions. The atmosphere for participant's creativity was warm and pleasant.

This Summer School provided me with an opportunity to broaden my professional knowledge, to disclose connections between science and art, to learn creative methods and ways of their application into the practice. We made a presentation about integrating scientific, creative, and artistic activities, where the digital tools were used. Based on instructions presented by the lecturers, we were able to use these tools in practice. This method contributed to my professional development, as well as my creative thinking, educational and artistic skills. New practical and academical knowledge gave me an opportunity to adapt new methods to my professional context and share my experience with other teachers. When I came back from the Summer School, I presented my experience to colleagues and pupils in my class. I will use those methods while teaching different subjects and with the great interest will share results of this implementation.

Elona Ramoniene

Primary school teacher, Lithuania



Driving creativity in classroom

From the Netherlands four participants joined the Summer school in Maratonas. They will all implement what they've learned at one or some primary schools.

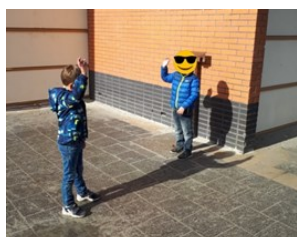
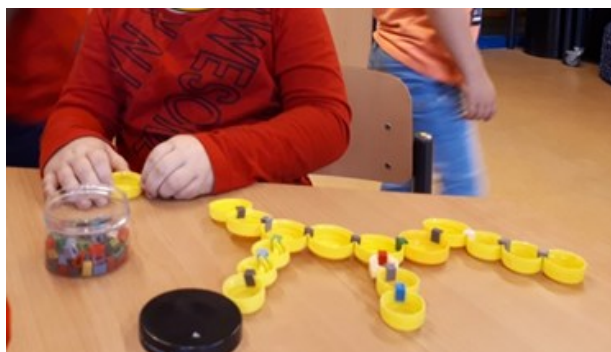
At the start of the new school year the Dutch participants had a meeting with Speel je Wijs to share their experiences, evaluate and make plans.

Rianne Hofma works as a primary school teacher at Vensterschool www.vensterschool.net. This is how she experienced the summer school:

"The Case Summer School inspired me a lot. I have many new ideas for STEAM education. I participated in the Slowmation workshop, and I also got informed about using puppetry and theater.

Next month we will get iPads, then I will certainly start with slowmation in my classroom."

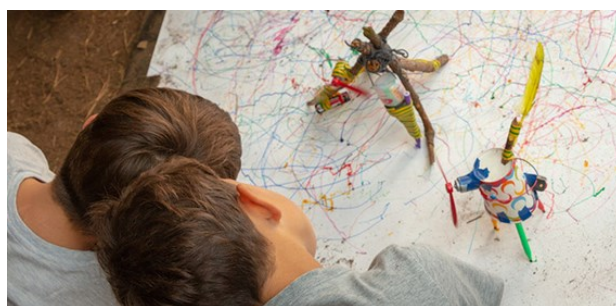
These pictures show some STEAM activities in Rianne's classroom last month, some of these introduced and guided by hand-puppets:



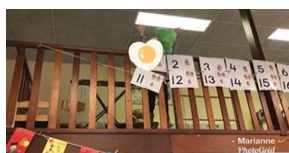
Marjan Kamphuis is a primary school and art teacher at the Fiduciaschool www.fiduciaschool.nl and works with children with special needs. The first of October she shared her experiences of the summer school with the entire team of her school. The colleagues are very enthusiastic about the knowledge and experiences she gained at the summer school. The team decided to use this in combined group with kindergarten and first classes of primary school during projects. They will choose themes and will integrate science and arts in Design Based Learning and Inquiry Based Learning. Next step will

contain a brainstorm session about this to choose themes and make a planning.

Joeke van der Veen is an artist and has her own company Meekit www.meekit.org and organizes workshops for children. What she learned most during the summer school was the importance of storytelling during a STEAM activity. Currently she implements this knowledge by creating a story around the STEAM challenges she does with children. Joeke: "It's great to see them engaging even more while solving a problem or thinking about possibilities because they sympathize with the story and characters!"



Marianne Lubbers is a primary school teacher at de Wegwijzer www.cnbswegwijzer.nl. Inspired by the summer school her class did the following experiment: the question to the kids by a puppet of a chicken was how her eggs could be protected best. The children thought of several solutions and tested these. They even threw the egg from the balcony in the classroom to check if their ideas worked well.





News

New collaboration

The CASE project recently began an exciting cooperation with the Western Norway University College's «Research Theater» for youngsters ages 7-9! Beginning in September, 2018, Associate Professors Kari Thorkildsen and Tone Stangeland, both of whom are drama education specialists, opened the College's doors to local children. The «Research Theater» emphasises open-ended tasks: the theater is created as we go along, implying that we do not know what we will end up with at the start of this creative process. By using inspiration from the CASE project's "Learning Science Through Theater" approach, this creative process is extended from theater to a curriculum-based scientific topic which will be chosen together with the children.

Training materials are now online!

The training materials are aimed at providing primary teachers with the tools and know-how necessary to develop their own lessons and scenarios based on the CASE approach.

[General toolkit](#) regarding the methods of creativity and arts in science education: This toolkit will be comprised of a suite of theoretical and image and video-based examples aimed at supporting primary teachers' implementation of the CASE approach in schools.



[Toolkit for the Learning Science Through Puppetry](#) case: This toolkit will be comprised of a guideline and practical scenarios aimed at supporting primary teachers' implementation of the Puppetry method in schools following Speel je Wijs's experience in the field.



[Toolkit for the Learning Science Through Theatre](#) case: This toolkit will be comprised of a guideline and practical scenarios aimed at supporting primary teachers' implementation of the LSTT method in schools following Science View's experience in the field.



[Toolkits for the Learning Science Through Digital Narratives](#) case: These toolkits will be comprised of a guideline and practical scenarios aimed at supporting primary teachers' implementation of the Narratives and Slow-mation method in schools following Aristotle University's experience in the field; also the Digital Storytelling approach following Elinogermaniki Agogi's experience.





CASE 2019 Athens summer school

"an innovative summer school that marries Creativity, Arts and Science in primary Education."



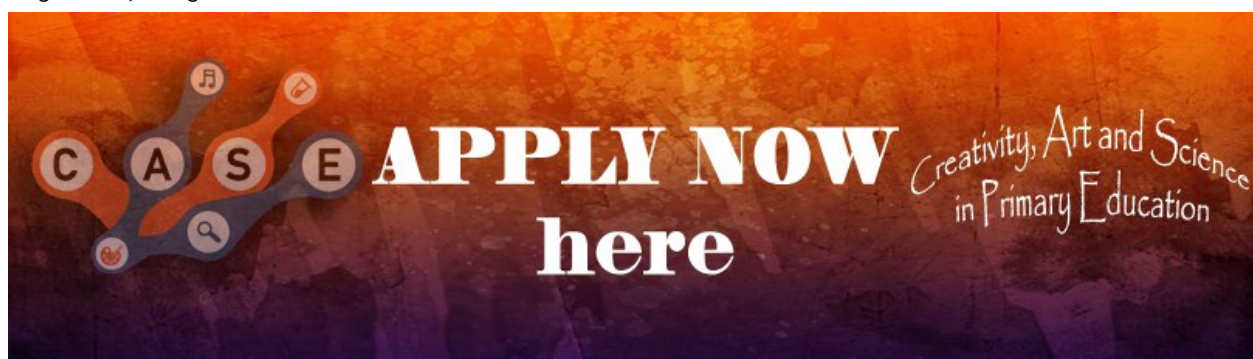
Science View, partner of the Erasmus+ programme CASE (Creativity, Art and Science in primary Education), participates in the organization of the second summer school on **30 June - 5 July 2019**. Join the 5-days intensive training in science education at **Golden Coast** hotel at Marathon (just outside Athens), for teachers, early stage researchers, artists as well as science communicators that are working with primary schools.

CASE summer school elaborates a methodology that regards teachers as agents of change. It aims to empower their profession with skills and competencies that will enable them to widen their teaching capabilities by incorporating creativity and art in science education.

The scope is to motivate participants to become aware of specific weaknesses in their own practice and the need to make necessary improvements aligned to the guidelines of Europe for the future of science education.

Enhancing teacher skills, strengthening their ability to motivate innovation and creativity is crucial. It is precisely the enrichment of the creative elements in Inquiry Based Science Education as an integral part of such a system, based on a wealth of existing European knowledge, which is the cornerstone of the CASE summer school.

The CASE summer school is the collective construct of innovative case studies for creative science inquiry, namely Learning Science Though Theater, Learning Science Though Puppetry and Learning Science Though Slowmation & Digital Storytelling.



You can take part in by:

1. **Apply for Our Institutional Grant** (for partner institutions only). Applications open on 15 December 2018 and close on 28 February 2019 at 23:59 CET .

[More info](#)

2. **Pay a Registration Fee**. Registrations open on 15 December 2018 and close on 15 May 2019 at 23:59 CET.

[More info](#)

3. **Apply for ERASMUS+ Mobility Grant**. Applications must be submitted through your organisation before 5 February 2019 at noon 12:00 (Brussels time).

[More info](#)

Photos CASE



For more information see

<http://www.project-case.eu/summer-school/>

or contact info@project-case.eu



Funded by the Erasmus+ programme, CASE is led by the Hogskulen Pa Vestlandet (HVL), with the following partners: Aristotelio Panepistimio Thessalonikis (AUTH), Dublin City University (DCU), Ellinogermaniki Agogi (EA), Science View (SV), Speel Je Wijis (SPEEL), Klaipedos Universitetas (KU).



The Cases



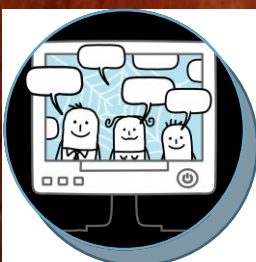
“Learning Science Through Theater” (find more [here](#))

Students will perform theatrically a story related to scientific themes and will learn science in a creative way. This case promotes the comprehension of scientific concepts and phenomena, development of a spirit of cooperation and teamwork and the development of creative and critical thinking skills. The specific objectives of the activity have as a central axis the interdisciplinary connection of science with aspects of art, aiming at the enhancement of students' interest in science.



“Learning Science Through Puppetry” (find more [here](#))

In this toolkit, inquiry based science education will be combined with puppetry. In every activity, a puppetry story will be played by the teacher. In this story the puppets have a problem or a question. This will arouse children's curiosity, which instantly will stimulate them to discover. Children will help the puppets to find a solution or answer. All activities will be challenging tasks in the field of STEAM education and every process can have many different results. Children will research like scientists and design like artists.



“Learning Science Through Slowmation” (find more [here](#))

This activity aims to transform science presented in curricula (usually strict, stiff and boring for young people) to open, friendly and interactive communication supported by the re-contextualization of science content in digital narratives created by learners. In order to do that a simple animation technique is used called slowmation: a slow and simple animation using only 2 photos per seconds. Slowmation movies are created in a creative learning environment where science concepts meet with art, music, literacy, society, history and philosophy of science. The developed digital narratives highlight and present the abstract

science concepts and theories in a creative and original way. Furthermore, the presentation of the developed digital narratives on the web provides a meeting place for learning and cooperation between young people.



“Learning Science Through Digital Storytelling” (find more [here](#))

The overall concept of the digital storytelling case is to provide the means and the tools along with the necessary collaborative and personalisation functionalities to introduce students in extended episodes of deeper learning in STEM combined with Art-related activities (visual and performing arts, music, movie making, 3D design). The specific case will introduce students in a progressive exploration of the different technologies that can be accommodated from the provided system, from simple text and video uploading to advanced augmentations of students' artifacts.

The Partners



CASE has been funded within the framework of the European Union
Erasmus+ programme

