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EVERYDAY  
Creativity

BOOSTING  
CREATIVE RESOURCES  
WITH FINNISH MODELS OF  
EDUCATION

# TEACHERS' HANDBOOK



JYVÄSKYLÄ  
UNIVERSITY OF JYVÄSKYLÄ

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# Introduction

## Everyday Creativity – boosting the internal creative resources of European schools with Finnish models of education

### *Introductory thoughts by the consortium coordinator*

Nowadays our children's attention is attracted (and distracted) by various real and virtual environments that engage them and make them willing to join all sorts of experiences and communities. How can we better sustain these experiences within schools, make kids willing to learn and make teaching at school more engaging? One way of making schools better places for real learning is to increase "creativity" in various aspects of education, where "creativity" has a contextually situated interpretation: navigating an open and bi-directional way between individual subjects, actors, on the one hand, and social, cultural and economic structures on the other, where learners are allowed to be active producers and thinkers rather than just consumers and reproducers of knowledge. This contextual interpretation of creativity, which lies at the centre of this Handbook, has been inspired by Pamela Burnard's<sup>1</sup> theory on "multiple musical creativities".

---

1 Burnard, P (2012). *Musical Creativities in Practice*. Cambridge, UK: Oxford University Press.

The contextual interpretation of creativity also allows us to think of the possibility of “everyday creativities” at school, where an open, flexible, continuously evolving and improving educational process makes creative actions at school customary, unexceptional, habitual and prosaic, thus continuously improving the creative competences of children and teachers at the same time. Several theoretical approaches and practical experiments across Europe direct us towards promising ways of making schools more engaging and more “contextually creative” environments. One of these theoretically grounded and continuously improved “experiments” is the Finnish education system. The Finnish National Core Curriculum for Basic Education<sup>2</sup>, with its focus on school culture and integrative approach seems an “ideal” that many kids, parents and teachers would love to see implemented in their schools. The key phrases of this curriculum that make educational specialists across the globe curious (and parents invidious) are: “active involvement of pupils, meaningfulness, joy of learning and interaction”; “every pupil is unique and has the right to high quality education”; “integration and dialogue between subjects”; and “assessment for learning and assessment as learning”.

However “magical” (and efficient) the Finnish education system might be, we are convinced that changes in schools can happen only from the ground up, building on the “internal resources”, internal values and local culture of each school and community. Within the “Everyday Creativity” project we wanted teachers and schools become aware of their own unique ways of being “everyday creative”, by showing them how the Finnish educational institutions nurture creativity and adapt their education system to embrace and shape the future of their society. Self-reflection, reading and getting inspired by positive examples all over the globe, working in international teams, co-creating learning results, peer feedback and reflected school observation were some of the tools that teachers from four countries (Hungary, Italy, the Netherlands and Romania) used to improve their schools, their communities and their teaching practices.

As a result of our project, in the participating countries we have witnessed changed classroom settings, re-defined roles for schools, varied

A brief summary of the Finnish National Core Curriculum for Basic Education 2014 can be accessed at: <http://bit.ly/FinnishCurriculum>



2 FNCC = Finnish National Core Curriculum for Basic Education 2014. Helsinki: Finnish National Agency for Education, 2016



teaching methods that inspire creativity, new modes of cooperation inside and outside schools, re-thinking of assessment and a bunch of local projects that all have a common message: change is important, change is possible! We hope these small “seeds” will flourish and will bear fruit soon.

*Lesson observation  
by European  
teachers at the  
University of  
Jyväskylä Teacher  
Training School*

*Csilla Lázár  
Executive director  
Spektrum Educational Center Foundation, Romania*



# Everyday creativities in the making

## *Editors' preface*

You can find the resources and tasks here: <https://bit.ly/2YfzZzK>



This Handbook is the result of several conversations and activities that took place during a blended in-service teacher education course “Everyday Creativity – Boosting the internal creative resources of European schools with Finnish models of education for creativity”. This course offered opportunities for teachers from Romania, Hungary, Italy and the Netherlands to map creative practices in their own school communities, come to Finland to reflect on their work in dialogue with Finnish teachers and education experts, and finally implement follow-up projects to further develop their creative pedagogical ideas. Instead of writing textbook-like material, we decided to emphasize teacher participants’ experiences to inspire their colleagues in and beyond their school communities.

The core material of this Handbook follows the modular structure of the online resource and task bank which is available on our project website.

The online resources and tasks can be used for individual or group study. We encourage our readers to team up with other teachers whom they know from their local community, their teacher organization, through social media or whom they find in any other ways. Writing notes and organizing pair and/or small group discussions may open up space for reflective dialogue. Involving students and/or their parents can also be stimulating and can make learning even more interesting and useful! We recommend working on the tasks and using the Handbook simultaneously, so that individual or group study can build and reflect on participants’ experiences from the first iteration of this course.

To put the study modules into a wider context, we begin our Handbook with testimonials from our project partners and the participating teachers to illuminate the relevance of the topics, activities and potential impact of this venture. Further, we explain how we assessed teachers’ needs to create an optimal course for them, and we share the main considerations that lie behind the course. Doing so, we emphasize the importance of co-design-



ing courses with prospective participants. The section "Practice creativity and innovation in your school" includes a reflective pre-task and materials from the course modules. The modules include sources, and participating teachers' reflections on the sources, as well as a collection of their observations gained from their visit to three local schools in Jyväskylä during their intensive training week in November 2018. This section also includes teachers' reflections on the creative practices of their own school community. The module materials are extended with descriptions of workshops that took place during the intensive week. Finally, presentations of participating teachers' follow-up projects show how they adapted some

*Tamás Péter Szabó  
and Kristóf Fenyvesi  
leading a workshop  
during the "Everyday  
Creativity" teacher  
training course at  
the University of  
Jyväskylä*

inspiring elements of their course experience to their own pedagogical practice. We believe that these follow-up projects are all very inspiring and will lead to pedagogical innovation beyond the teachers' local school communities as well.

We would like to express our gratitude to the course participants and their national coordinators, teachers at local schools in Jyväskylä as well as to our colleagues who led workshops, for this intensive and fruitful collaboration. We have learnt a lot from all stages of this journey: organizing, teaching and supervising the course as well as editing this Handbook. We hope that this Handbook, which is also a document of the learning pathway of our learning community, will inspire practitioners who want to grow in the teaching profession.

*Tamás Péter Szabó*

*Kristóf Fenyvesi*

*Gomathy Soundararaj*

*Tea Kangasvieri*

*Editors of this Handbook*

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## Introducing the developers and teachers of the blended course

**Tamás Péter Szabó, Ph.D.** is a Postdoctoral Researcher of Multilingualism in the Department of Teacher Education, and an Adjunct Professor of Applied Linguistics specialized in Linguistic Landscape Studies in the Centre for Applied Language Studies of the University of Jyväskylä, Finland. His main interests lie in the design of learning environments that support bi- and multilingual education. He has studied Hungarian and Finnish educational settings and conducted research fostering community-led pedagogical innovation. Tamás has developed courses and course modules for pre- and in-service teacher education with focus on multilingualism and learning environments that enhance student-involving interaction. He has organized several local and international workshops and published academic and popularizing articles alike to reach a wide and diverse audience. You can contact him via email: [tamas.p.szabo@jyu.fi](mailto:tamas.p.szabo@jyu.fi)



**Kristóf Fenyvesi, Ph.D.** is a Postdoctoral Researcher of STEAM (Science, Technology, Engineering, Arts and Mathematics) Trans- and Multidisciplinary Learning and Contemporary Cultural Studies. He works for the Finnish Institute for Educational Research as a member of the Innovative Learning Environments Research Group and at the Department of Teacher Education of the University of Jyväskylä. Currently, he is Vice-President of the world's largest mathematics, arts and education community, the Bridges Organization (USA). His main responsibilities include the coordination of the annual Bridges conference's workshop track and the Bridges Family Day. In 2008, together with his colleagues, Kristóf started the Experience Workshop International STEAM Movement, which is very active in organizing various international scientific



events, education programs, exhibitions and STEAM festivals all around the globe. You can reach him via email: kristof.fenyvesi@jyu.fi

Tamás and Kristóf have developed the curriculum and the online content of the “Everyday Creativity” course, and they taught in the face-to-face sessions in Jyväskylä as well. In this course, they cooperated with guest lecturers who led workshops:

**Mirja Tarnanen**, Ph.D. (University of Jyväskylä)

**Mikko Vesisenaho**, Ph.D. (University of Jyväskylä)

**Anna-Leena Kähkönen**, Ph.D. (University of Jyväskylä)

**Antti Lehtinen**, Ph.D. (University of Jyväskylä)

**Olli Merjovaara** (University of Jyväskylä)

**Gysbert Bergsma** and **Guydolph Dijkstra** (Stichting VerbindMij)

Further, **Jukka Sinnemäki** (Jyväskylä Christian School) took part in discussions with the participating teachers in one of the workshops.

## Introducing local schools and teacher coordinators in Jyväskylä

The schools are listed in alphabetical order.

### **JYVÄSKYLÄ CHRISTIAN SCHOOL**

Coordinator: Jukka Sinnemäki

### **UNIVERSITY OF JYVÄSKYLÄ TEACHER TRAINING SCHOOL**

Coordinator: Susanne Roos

### **VIITANIEMI SCHOOL**

Coordinators: Merja Sinnemäki and  
Leena Kuorikoski



## Introducing the participating teachers and their coordinators



In this list, we indicate the names of teachers in alphabetical order.

### Team **ROMANIA**

**Coordinator:** Csilla Lázár / **Teachers:** Alpár Ferencz-Salamon, Boglárka György, Edit Páll, Mária Szidónia Ráduly, Enikő Tankó

### Team **HUNGARY**

**Coordinator:** Anikó Vári, Ph.D. / **Teachers:** Ágnes Földvály, Domonkos Németh, János Schulcz, Zita Andrea Szalai, Attila Vári

### Team **ITALY**

**Coordinators:** Michela Lupi and Simona Bruno / **Teachers:** Letizia Barbadori, Serena Bruno, Susanna Maresca, Alessandra Schippa, Francesca Ugolini

### Team **NETHERLANDS**

**Coordinator:** Sasha Dijkstra / **Teachers:** Gysbert Bergsma, Maaïke Bergsma, Joop Boomsma, Guydolph Dijkstra, Anton Span

## Partners' experiences



**Consortium leader:  
Spektrum Educational Center,  
Miercurea Ciuc, Romania**

Working with the University of Jyväskylä was a privilege as we have learnt how to manage a blended in-service training and how to best exploit the learning potential of school visits and lesson observations. The local partnership with the József Attila Primary School was crucial in assuring the project's relevance for public education in Romania. Participating teachers and other teachers at local workshops and dissemination events were encouraged to start their own creativity projects. With the project focusing on the growth of "wellbeing" in schools, parents also got interested. The local and regional media noticed us and we reached thousands of stakeholders (teachers, decision makers and parents) with our key messages through online and printed articles. We consult with public education stakeholders regularly and have started projects like anti-bullying measures in schools and creative and cooperative use of digital tools.

focusing on the growth of  
"wellbeing" in schools

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*Csilla Lázár*

## Attila József Elementary School, Miercurea Ciuc, Romania



We gained valuable experience through teachers who participated in the training. The teachers who took the Everyday Creativity course organised events after their on-site training for others in the school to share their experiences through testimonials, pictures, videos and engage with hands-on activities. Based on the experiences in Finland, a special interactive week was organised which focused on learning-by-doing and phenomenon-based learning where teachers from different fields collaborated to design and implement practical, skill-centered activities.

*Enikő Tankó and  
Alpár Ferencz-Salamon*

## Società Cooperativa Sociale Borgorete, Perugia, Italy



Cooperativa Sociale Borgorete has completely leveraged the wonderful opportunities offered by the project Everyday Creativity to strengthen its collaboration with two comprehensive institutes (one primary and one lower-secondary school of age group 6–14). These collaborations have proven to be very fruitful in working together with very motivated and competent teachers. The teachers were deeply interested in the course and participated enthusiastically in both the online and on-site training in Finland. For Borgorete as an organisation, there was real value in participating in the project, particularly from the perspective of having achieved a stronger collaboration with schools. Things learned from the project will certainly stay within the organisation for a long time.

*Michela Lupi*





## Business Development Friesland (BDF), Leeuwarden, the Netherlands

### a larger network of teachers

BDF was an organising partner in the Everyday Creativity project. We used our own network to select the participants for the training with the support of the mentoring organisation Stichting VerbindMij. BDF supported the teachers in practicalities and helped them with their online training tasks ahead of the on-site training in Finland by making appointments with each other and intensive email contact. We now have a larger network of teachers which is a great addition to BDF and have built expertise into teachers' situations with respect to creativity and its enhancement.

*Sasha Dijkstra*



## M-Around Educational Consulting Ltd., Maroslele, Hungary

### joint working and tutoring roles in a heterogeneous group

The blended training course for teachers was a unique opportunity for the participants. The selected participants were motivated, but during the online phase of the training, we had to concentrate on how to keep them focused. The team members were chosen from different schools and brought different perspectives to the collective work. It made the teamwork colourful, but it was also necessary to provide them with sufficient information and support. The whole coordination process gave us experience in joint working and tutoring roles in a heterogeneous group which is a pressing issue in educational support and development processes. It was marvellous to notice the revelation of the team members and how their attitude became more innovative and creative with pedagogical practices.

*Anikó Vári*

## University of Jyväskylä, Finland



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As developers and teachers of this course, we have found this journey very rewarding. Throughout the continuous conversations and negotiations with team coordinators and the participating teachers, we have learnt a lot about adjusting the development, teaching and supervision processes to the needs of an excitedly heterogeneous population of participants. We believe that open conversation, shared design and flexible (re-)planning are among the factors that helped us produce learning materials which then will be useful for a wider, global audience. The pedagogical examples, reflections and various insights we have gained from the participating teachers will definitely be incorporated into our regular courses. In brief, we can say that the University of Jyväskylä has gained valuable partnership and new knowledge about various educational contexts through this project.

open conversation, shared design  
and flexible (re-)planning

*Tamás Péter Szabó and  
Kristóf Fenyvesi*

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# Teacher participants' testimonials



You can watch the video here:  
<https://bit.ly/2X0LfDF>

We interviewed teacher participants and the developers of the course during the intensive week in Jyväskylä. We asked them to encapsulate their experience and reflect on some main questions – below you can find one answer per national team. You can see and listen to many more opinions and testimonials in a video of the project. The video was directed by Csilla Lázár and was recorded and edited by Dimitar Dachev (Studio Inthecity).

## ***How has the training challenged your teaching practices?***

It challenged me completely. I was reminded of some things that I forgot from my teaching practice. What I really like is the way the Finnish classrooms use team work in every way involving others, and teachers being good, kind leaders. I like the trust between each other – among the teachers and students, among the teachers and among the school management and teachers. If the students feel trusted, then they do the work, especially when combined with teamwork, so gradually they are going to learn to work in a practical way. They are going to have higher expectations of themselves.

*Boglárka György, Romania*

teachers being good,  
kind leaders

## ***How has this training strengthened your teaching beliefs?***

We worked according to thematic modules and our group focused on the use of learning resources and materials. Yesterday we visited a school and talked to a teacher, Jukka Sinnemäki. We asked what materials and resources he used but he answered that those were not the most important. What he

the most important is the relationship  
between students and teachers



considers the most important is the relationship between students and teachers. This is also my creed; I also think that a teacher is successful if this relationship works well.

*Domonkos Németh,  
Hungary*

*Visiting teachers taking the role of "music learners" at the Viitaniemi School*

### **What do you bring home from this training?**

I would like to have the opportunity to divide the class into two groups and have the opportunity to work more closely with my students to understand things better and work in a variety of ways. During our school observations in Finland, we focused on cooperation and collaboration between teachers who teach different subjects. We observed that if teachers take the initiative it can happen, and it is good for students to better understand the connection between different subjects and it also improves student motivation.

**cooperation and collaboration between teachers who teach different subjects**

*Leitizia Barbadori, Italy*

### **What surprised you the most in the Finnish schools?**

I think the gym equipment in the classroom and the freedom that students get surprised me the most. They learn a lot during class time and when they feel the need to exercise or move around, they are free to use the gym equipment without disturbing others and then come back to work at their desks.

**the freedom that students get**

*Anton Span, the Netherlands*



*The "gym in the classroom" project by the teacher, Jukka Sinnemäki and his students at the Jyväskylä Christian School surprised and inspired the visiting teachers*

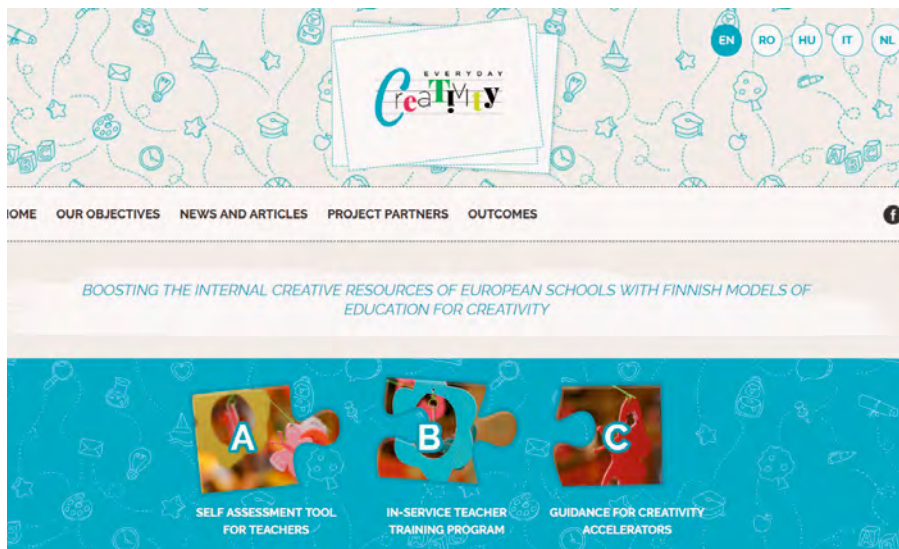
# A journey through the course: needs assessment, joint planning and implementation

## The motivation and background of the course

Being creative is challenging and simple at the same time. “Be creative!” is imperative in our age, but being creative every day is not always so easy. In this course, however, we have built some evidence that this is possible. Following the theory synthesized by Pamela Burnard (2012), we think about creativity in plural and try to identify and enhance different everyday creativities and multiple ways to be creative. However, we need to recognize that even with the most open teaching modalities, it might not be appropriate to accept and open space for all kinds of creativities. Further, we need to understand that creativity has many facets: we quite often take it for granted that it is always positive, but sometimes it can even be very disruptive. Our course intended to contribute also to teachers’ awareness, experience and understanding to recognize the learning opportunity in divergent thinking or behavior.

## The needs assessment process

To identify areas of development and to design the course content and structure accordingly, we developed a needs assessment process that comprised an online tool for teacher self-assessment (which you can



The online tool for teacher self-assessment is accessible on the project website: [www.creativeschools.eu](http://www.creativeschools.eu)

also use, see page 20) and interviews with education stakeholders in each participating country. The main aims of both methods were (1) to raise awareness among teachers about the importance of creativity in everyday teaching practices, and (2) to understand the teachers' needs in order to design an appropriate blended course for them.

## Online teacher self-assessment tool

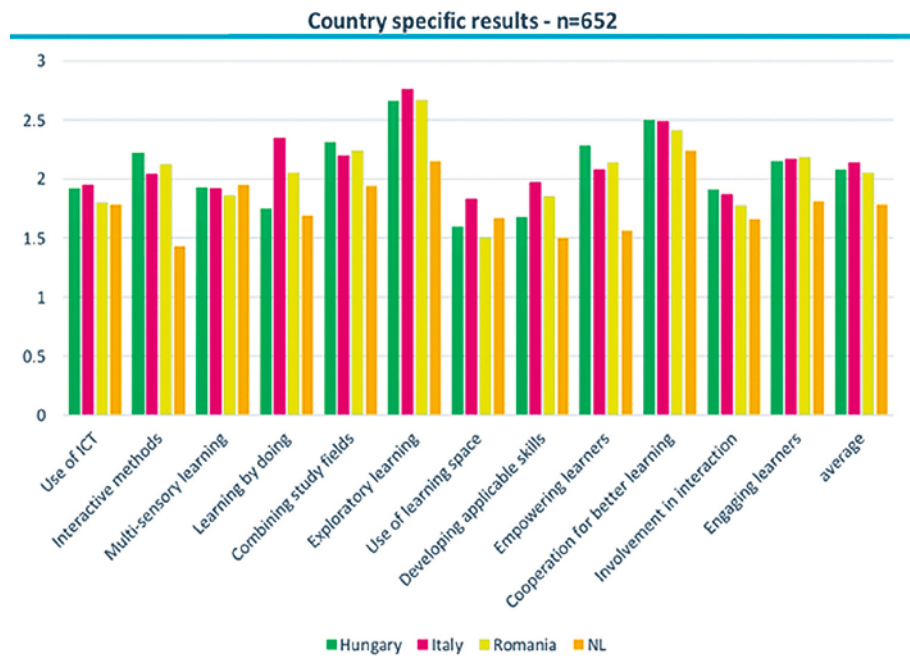
An interactive tool was created to collect information about the needs of the teachers and to make them reflect on their everyday teaching practices. The tool was made available in five languages (English, Romanian, Hungarian, Italian and Dutch) and aimed to reach a minimum of 50 teachers per country at the end of the needs analysis phase. The tool was based on a model of creativity developed by Pamela Burnard (2012) which focuses on three clusters that we adapted to educational settings:

- Modalities (variety of tools, technologies and materials used in teaching)
- Practice principles (variety of methods and strategies used in teaching)
- Forms of authorship (with a special regard to cooperation with learners)

You can access the online self-assessment tool here:  
<https://creativeschools.eu/>



The self-assessment tool includes 33 I-statements with four level frequency options (Never, Rarely, Sometimes, Often) which were then coded for analysis from 0 to 3 (0 = Never, 3 = Often). Each statement represents one of the clusters (technologies, methods or interaction). After completion, the users can download the results from the tool in PDF format for their own reference. They also get structured feedback which is organized along different aspects of teaching, e.g. use of ICT, multi-sensory learning, combining study fields, etc. (see the figure below). In the needs assessment phase of the project (March–April 2018), responses were collected from 652 teachers from Hungary, Italy, the Netherlands and Romania. The results of the data analysis can be seen in the figure below.



According to the average results, the areas where teachers achieved lower scores in all (or most of the) countries were:

- Multi-sensory learning**
- Use of learning spaces**
- Combining study fields**
- Involvement in interaction;**
- Use of ICT**
- Engaging learners**



# Stakeholder interviews

The stakeholders involved in the interviews were teachers, school authority representatives, school inspectors and parents. The interviews were face to face and lasted for 20–60 minutes. 21 interviews were carried out in total in all the four countries. The interview questions were divided into two parts. In the first part there were general questions which were common for all participants, and in the second part there were questions customised according to the role of each stakeholder group.

Using the results of the self-assessment tool supported by the stakeholder interviews, we planned the blended course, with online materials and on-site training.

The complete report of the needs assessment process can be found online:  
**<https://bit.ly/2J3uOfT>**  
Or: **[www.creativeschools.eu](http://www.creativeschools.eu)**



## How the blended course was designed

We decided to create a modular structure for the course to enhance focused reflection and discussion. The modules target the development areas of the course which were defined with the help of the needs assessment process:

1. Learning space and multi-sensory teaching
2. Developing applicable skills through teaching
3. Organization of interaction and technology in the school
4. Connecting different subjects in learning and teaching (e.g. multidisciplinary, interdisciplinary education)

**modular structure for the course to enhance focused reflection and discussion**

Materials in the chapter “Practice creativity and innovation in your school” of this Handbook are organized according to the course modules (for more information about the modules, see pages 30–63.)



As for the pedagogical approach of the course, we aimed at creating dialogical spaces for learning (cf. Bakhtin 1981; Vygotsky 1979). We discussed the curriculum of the course with all project partners in the transnational project meeting in Perugia (spring 2018) and asked them to make suggestions for the course content. They all provided very valuable sources for the modules, bearing in mind that only Open Access materials should be used to guarantee equal opportunities for learners. When working on the tasks that were based on the collected materials, we wanted to create opportunities and design learning pathways but avoid over-instructing participants, so as to keep their learning flexible and individual.

To provide several and diverse options for learning, we created the following structure for the blended course:

➔ **Online phase #1: 17 September – 31 October 2018**

1. Self-evaluation of teaching and writing personal teaching philosophy (individual task)
2. "Creativity in our school" project (team task)
3. Minor individual assignments, mainly reflections on sources and own teaching in Modules 1–5

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- **On-site intensive week in Jyväskylä (19–23 November 2018):** various workshops and school visits, as summarized below.

Session	19 November	20 November	21 November	22 November	23 November
1	Intro	School visit	School visit	School visit	Workshop on Modules
2	Invited workshop				
	Lunch	Lunch	Lunch	Lunch	Lunch
3	Team presentations ("Creativity in our school" project)	Invited workshop	Invited workshop	Workshop on Modules	Workshop: planning follow-up projects
4	Workshop on Modules	Workshop on Modules	Workshop on Modules	Invited workshop	Wrap-up Closing
	Dinner	Optional recreational programs			

Table 1: Structure of the intensive week

- ➔ **Online phase #2 (1 December 2018 – 31 March 2019):** implementing and reporting on individual follow-up projects

## How the blended course worked

exposure to a variety of perspectives bring the unexpected to our work

The whole course was built on the conviction that interaction and especially exposure to a variety of perspectives bring the unexpected to our work and thereby foster creativity: being surprised can pave the way for the renewal of our practice. We understood that teachers wanted to learn more about creativity, and we also wanted to help them realize that they already use many creative ideas, and multiple creativities are manifested in their work in myriad ways. Reading articles and watching videos as well as writing reflections and reading their peers' texts in the online phase initially, teachers took the opportunity to look at their daily work with new eyes and discover something unexpected, inspiring and fresh even in their well-known routines.



Creative practices at the József Attila School (Romania) presented creatively in form of a magazine

As part of the online activities before the intensive week, teachers wrote reports with their colleagues in which they critically presented their creative and innovative pedagogical practices. Asking the national teams to write reports, we tried to help them recognize the most interesting features of their teaching. To be able to give a presentation of interest to other participants, they needed to look at their own work from the other persons' perspective. Such a change of perspective is the basis of dialogic learning.

Reading the online posts and later, in Jyväskylä, attending the presentations of the national teams, the whole course community has discovered the richness of diverse pedagogical practices. To extend the perspectives of teachers, we organized visits to three local schools where participants took the chance to observe lessons and talk to their Finnish colleagues. According to feedback, local Finnish teachers appreciated the diversity of the participants and found conversations with them very fruitful and thought-provoking. They also experienced what we wished to enhance: they needed to explain their practices to visitors so they needed to take another person's perspective, and that helped them understand their own practices.

discovered a richness of diverse pedagogical practices

Regular, daily workshops during the intensive week offered good opportunities for intensive conversations and peer learning. We asked our local colleagues as well as two participating mentors to give workshops and share their perspectives on some of the development areas of the course. Summaries of the invited workshops can be found in the "*Workshop materials*" chapter. Further, there were workshops for reflection on the school visits. Participants worked in groups, each focusing on one of the five modules, and finally they prepared a module portfolio to present what they had learnt from the school visits and the invited workshops. There were five groups with 4-4 members: one person from each country. Shared observations and discussions with colleagues from other countries again enhanced moments of surprise, encounters with the unknown, and chances to become familiar with others' points of view. Materials from these workshops are integrated into the chapter "Practice creativity and innovation in your school".

module portfolio to present what they had learnt from the school visits



*Teachers work on their module portfolios in international teams*

Finally, teacher participants designed, implemented and reported their follow-up projects to experiment with new ideas and deepen their learning through reflection. They started working on their follow-up project plans in Jyväskylä in their national teams, and then worked on them in their home institutions in collaboration with their colleagues and students. Reports of these follow-up projects can be found in the chapter *“Developing creativity – a follow-up”* of this Handbook.

Participating teachers received significant support from their local coordinators during the whole course, and their work was also supervised by the responsible teachers of the course, Tamás Péter Szabó and Kristóf Fenyvesi, especially during the on-site intensive week.

# Towards new communities

Editing this Handbook and publishing the collection of materials and tasks on the project website, we hope that new learners will join our learning community and will find inspiration from the materials and discussions we share. Hints for individual and self-organized peer learning can be found in the following chapters of this Handbook.

Join our learning community!  
[www.creativeschools.eu](http://www.creativeschools.eu)

## References

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EVERYDAY  
Creativity

# Practice creativity and innovation in your school

This section is divided into an introductory task and five modules focusing on specific topics to enhance creativity and innovation. We recommend you to maintain a diary (a digital file or a physical notebook) to record your reflections, thoughts and answers from the module tasks. We also recommend that you team up with your local colleagues or join a (face-to-face or online) network of teachers to share and further develop ideas. It can also be refreshing to brainstorm with your students, their parents and other members of your school community! You can decide to keep your diaries individually or launch a closed or open blog to make reflection a community action.

<https://creativeschools.eu/en/self-assessment/self-assessment-tool-for-teachers>



As a first step, please think about your daily practices and use the following self assessment tool developed for this course. This tool helps you reflect on your methods, strategies, tools and technologies. Use this link (<https://bit.ly/2MloD7B>) or the QR code and answer the questions. Do not forget to save the feedback page for future reference!

Now that you answered the questions and have the feedback page at hand, answer the following questions in your diary, in some 150–200 words.

1. How would you briefly summarize your teaching philosophy? That is, why do you teach in the way you do?
2. How would you define creative teaching? What does it mean to you to be a creative teacher?

MY NOTES

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# Teachers' talk on creative teaching

Teacher participants from the course shared insights, from which we offer here a selection for inspiration.

Creative teaching allows you to bring out different types of talent and individual skills. It is important for me to provide students with an environment that allows them to understand how things work and try to promote self-correction centered learning situations. I strongly believe that *"An answer is always on the stretch of road that is behind you. Only a question can point the way forward."* (Jostein Gaarder)

*Serena Bruno, Italy*

to understand how things work

My teaching philosophy is *"If you think about yourself, you have problems. If you think about others, you have interesting tasks and challenges."* As a teacher I think that I have interesting challenges day by day. In my view, besides theoretical knowledge, every child should learn to be independent, to solve their problems, to defend themselves in a peaceful way and to be kind and respectful to each other. I am trying to do my best to teach them these values, because they will use them throughout their adulthood. I tend to show them the way, not the solution.

*Mária Szidónia Ráduly, Romania*

teach them these values

To summarize my teaching philosophy, I have to underline two big areas: culture and communication. As I am a foreign language teacher, I consider it very important that my students know and respect others' cultures and, through cultures, other people. I usually emphasize that we learn languages to communicate, to express ourselves, to build relationships and to know the world. These are my teaching principles.

*Ágnes Földváry, Hungary*

we learn languages to communicate, to express ourselves, to build relationships and to know the world

The core of education is to build the pupil-teacher relationship based on trust and authorship. I believe that education is more than memorising facts. If you want to be a good teacher, you have to know the person as well as the



facts he has to learn. Creative teaching starts with the teacher. Teacher gives students a voice, lets them learn together and helps them to overcome their thresholds. The teacher sees work as a challenge, investigates effective approaches and aims for sustainability. A teacher is a lifelong learner.

*Joop Boomsma, the Netherlands*

## Unleash your creativity

With a better understanding of your teaching philosophy and what creativity means to you, let us start with the learning modules. There are five modules in this section.

**Module 1:** Promoting cooperation among teachers

**Module 2:** Creative ways of teaching and learning

**Module 3:** Pedagogically conscious creation and use of resources and materials

**Module 4:** Developing a learner-centered indoor and outdoor environment

**Module 5:** Engagement and motivation of learners, teachers and parents for innovation

**Each module is divided into three parts:**

- **Resources to inspire:** Articles, books, research papers that will help you understand the theoretical concept of the module
- **Module tasks:** Activities, writing tasks, discussions based on your experiences and the literature you read for the module
- **Best practices:** Highlights of everyday practices from schools of Finland, Italy, the Netherlands, Romania and Hungary as recognized by the teacher participants. During the intensive week in Jyväskylä, each team focused on one of the modules of the course and reported on their main findings. The quotes in this section come from the portfolio reports of teams. Further, we have included text from the national teams' pre-assignments about their already existing creative practices.

We recommend that you do the coursework of Module 1 first and then complete the others in any order of your preference. For a more enriching experience, we also highly encourage you to complete the modules with your peers and hold discussion groups after the tasks.

## Module 1

### *Promoting cooperation among teachers*

The module aims to enhance cooperation among teachers. The materials and activities help you to:

- find cooperation partners in your school
- implement shared projects across subject boundaries
- initiate change and starting innovation

### *Resources to kindle cooperation*

*25 Ways Teachers Can Connect More With Their Colleagues. Best Colleges Online.*

The article shares hints to enhance cooperation with your colleagues. The subheadings in blue point to a detailed source or discussion forum. You can read more about the ideas that you are most interested in.

*National core curriculum for basic education: focus on school culture and integrative approach Finnish National Agency for Education.*

This overview summarizes the main elements of the Finnish national core curriculum, and explains why increased cooperation at all levels (including subject teachers) is necessary for efficient multidisciplinary learning.

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<https://bit.ly/2IHX20B>



<https://bit.ly/2Ne1t7T>





<https://edut.to/2uAJIUH>

<https://edut.to/2Ce4Vch>



## **TASK 1:**

### ***An implementation guide for teacher cooperation across subject boundaries***

Read the following articles:

***Using a Mock Trial to Build Literacy Skills* (Shane Safir)**

***Using Science to Bring Literature to Life* (Amy Schwartzbach-Kang and Edward Kang)**

Working together with colleagues that have a different disciplinary background than yours can be an inspiring but challenging experience. Think how collaborative teaching across subject boundaries could renew your teaching and make notes in your diary. You can also have a discussion forum with your peers after this task.

#### **Points to note**

- ➔ the teaching projects presented in the articles
- ➔ your experience with planning and implementing teaching projects in collaboration with other teachers
- ➔ the challenges of finding collaboration partners, and how to address these.

#### ***Teacher participants' voice on enabling cooperation***

**Cooperation in the classroom** by Ágnes Földváry, Hungary

Finding a cooperation partner is always a big challenge. It is not easy to find a good topic and a perfect partner. On top of that, students are also not used to working with two teachers simultaneously. It is also difficult to create feasible conditions for working together such as perfect equity, mutual agreement, good problem solving skills and time. Sometimes the national curriculum is overloaded, thus making it impossible to cooperate across subject boundaries.

#### **Re: Cooperation in the classroom**

by Enikő Tankó, Romania

I agree with you that working out appropriate partnerships can be really difficult, especially if we are talking about long term projects where you need to be able to work together for a longer period of time. As you also mentioned, having a similar teaching philosophy and effective communication between partners are key elements in designing successful activities together.

MY NOTES



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## Cooperation by Alessandra Schippa, Italy

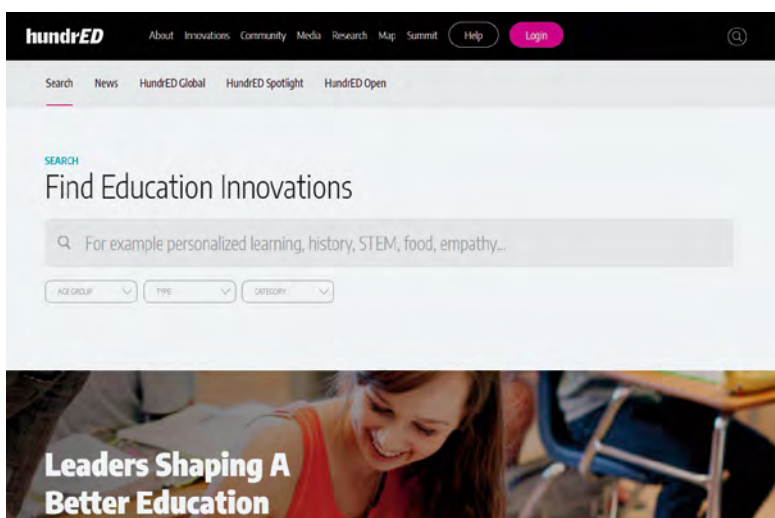
I believe that teacher collegiality plays a vital role in developing teacher professional growth, job satisfaction, and increasing knowledge as well as school quality and student performance. Last year, two of my colleagues and I attended a CLIL [Content and Language Integrated Learning] course for primary school teachers. We planned and organised a project on the Solar system. We found it meaningful to work together as we discussed, shared and connected creatively for integrating English and Science. Learning to cooperate is one of the most important skills and school is the perfect place for it. It is not always easy to collaborate with other colleagues because everyone has their own ideas and working style. I think it is really important for teachers to recognize the value of working together and focus on commonality.

teacher collegiality plays a vital role in developing teacher professional growth, job satisfaction, and increasing knowledge as well as school quality and student performance

## TASK 2: An initiation path for change and innovation

HundrED, a non-profit organization has disseminated inspiring projects of educational innovation. Their website showcases hundreds of innovations with detailed descriptions. You can use the search facility, or browse in collections (e.g. from the year 2018).

<https://hundred.org/en/collections/hundred-2018>



MY NOTES

Choose at least one innovation from the website that you find interesting and relevant to your own teaching, and write your thoughts about that. You can also have a discussion forum with your peers after this task.

In your entry:

- ➔ **add the title of the innovation**
- ➔ **add the link of the description or write your own description**
- ➔ **describe how it relates to your own teaching**
- ➔ **tell whether you would like to experiment with it (how and why)**
- ➔ **tell how you would begin to adapt the innovation in practice**

### Teachers' thoughts on innovation

Letizia Barbadori from Italy chose the innovation **Hands on learning: the hook that keeps kids at school** from Australia.

I teach in a primary school but the article that I am interested is about older students. I believe that lack of interest in school starts at the very beginning of the school education process. Classes are a cross-section of society,

the “hands on learning” approach presents a second chance for students who are not interested in developing their potential and decide to dropout

as we welcome students coming from very different backgrounds. I find the “hands on learning” approach presents a second chance for students who are not interested in developing their potential

and decide to dropout. This learning method can lay the foundation for a better future and it helps to build a strong relationship with the teachers. I would like to have programs like this in my country to prevent students from dropping out and support students who feel dejected.

Zita Andrea Szalai from Hungary chose the innovation **NaTakallam** from Beirut, Lebanon

As a language teacher I always have problems with communication in the classroom. My students avoid using English during lessons. Some of them feel silly speaking the language because they know they make mistakes or they do not have the proficiency to express themselves in English. Na-TaKallam gives unique language learning experiences. It connects people all around the world to provide language practice over Skype. I would work with native speakers as it is the best way to improve a foreign language and



<https://bit.ly/2mUutSy>



<https://bit.ly/2yqkMQp>

it pushes the students to use English to communicate. They will be exposed to more idioms, dialect, slang and a generally more extensive vocabulary than with a non-native speaker. Apart from being motivated to speak English, my students can also learn more about other cultures. A laptop with internet access, a projector and an interactive whiteboard screen for learning are required.

be exposed to more idioms, dialect, slang and a generally more extensive vocabulary

**Re: NaTaKallam**

by Enikő Tankó, Romania

It was so refreshing to read about this project! I am an English teacher myself and I frequently face the same problem. My students also tend to avoid using English during lessons. I think this project would really motivate learners in using the target language even if they make mistakes. And, of course, they can learn using their gadgets! Great idea!

**Re: NaTaKallam**

by Francesca Ugolini, Italy

I think this innovation can be really useful in English classes. We should expose students to an authentic context because we teach a language which has so many dialects, accents and speakers. If we don't show them the authentic variety of English spoken all around the world, there is a risk of teaching an academic, old-fashioned language. It is of great value to learn about different cultures 'live', without teachers' filter.

### Best practices of cooperation from European schools

Teacher participants of this course found the following interesting examples during their school visits in Jyväskylä and while reflecting on the practices of their own school.

**Cooperation involving online tools (Finland)**

An English teacher and a former colleague, a Biology teacher, collaborate through Skype with a teacher from Florida. The teachers and students of both classes work together to investigate nature and the animals that live in their different climates. Apart from

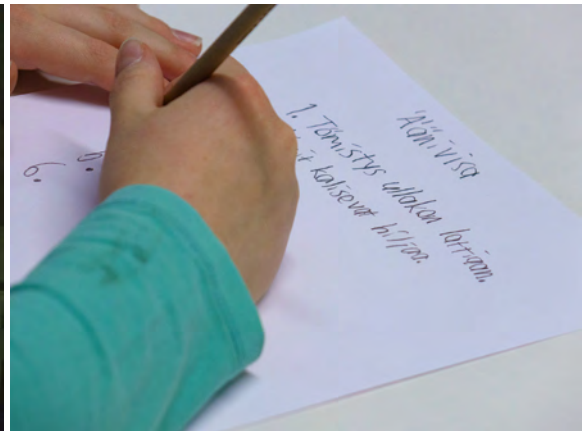
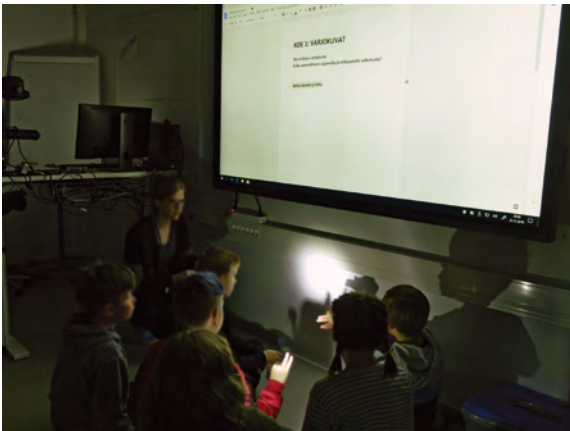
students enjoy working with foreign students from abroad

working on a topic of common interest, the Finnish children also learn English by talking with the native speakers. This sort of collaboration is 'normal' in the school. The students enjoy working with foreign students from abroad.

*A joint science lesson for two classes: In one classroom they all learn about "the light", in the other they study "the sound".*

### Joint planning (Finland)

A 3rd class teacher said that he had a meeting every second week where they defined what their plans are for the following two weeks and what the aims of the lessons are. Also in the school there is collaboration among the Chemistry teachers. They make it clear what they want to achieve during the school year.



### Cooperation with supervising teachers (Finland)

A 1st class teacher collaborates with supervisor teachers to make plans for thematic studies in science, for example. They initiate change and start innovation together. They share information, ideas and resources. This has a mutually positive impact and helps them to find the most effective teaching methods.

**initiate change and start innovation together**

### Co-teaching in Step-by-step school (Romania)

In step-by-step schools two teachers teach simultaneously. The efficient cooperation between teachers can have a positive impact upon the general cooperation culture of the school. Little by little the methods which have proved to be efficient in the Step by step classroom started to spread and influence the atmosphere and all the activities carried out in the school.

### **Building on informal cooperation (Hungary)**

While not very formalized, cooperation is a natural ingredient of school life in most Hungarian schools. There is an emphasis on informal meetings of teachers in their free time. They also cooperate when they plan the involvement of the local community into school life.

Local communities also need to be informed about changes in the educational content. For

many years we have been focusing on cooperation and networking with local people, to strengthen our respect. We regularly arrange activities where we present our everyday school activities and results, and where we invite people to take part in our life.

informal meetings of teachers  
in their free time

### **Coaches and mentors to assist the work of teachers (The Netherlands)**

The Rock and Water program is being provided in (some) first classes of a secondary

school in the Netherlands. At these activities specially trained and licensed teachers work together with the class teacher, and the students receive a social competency training and learn about safety, integrity and connectedness. This training is a scientifically proven program and it improves the cognitive skills of students.

specially trained and licensed  
teachers work together with the  
class teacher

### **All working around art (Italy)**

In Italy, creativity also means co-teaching and cooperation between teachers of different subjects and classes, breaking the boundaries in order to show that learning is a global process. One example is a project about Etruscan civilization, where several teachers work together to provide a hands-on experience about the Etruscans, doing laboratory work, bringing children to museums and “hugging old walls”.

several teachers work together to  
provide a hands-on experience about  
the Etruscans, doing laboratory work,  
bringing children to museums and  
“hugging old walls”



## Module 2: *Creative ways of teaching and learning*

The module helps you to reflect on your own practices and gain a fuller understanding of the links between creativity and learning. We will explore:

- ➔ **possibilities of innovation**
- ➔ **ways to adapt novel methods and approaches to your own teaching**

### Resources to initiate creativity

*Inspiring a Generation to Create: 7 Critical Components of Creativity in Children.*  
Center for Childhood Creativity, 2015.



<https://bit.ly/2WYkWJm>

As the publisher's description states, this brochure "synthesizes more than 150 studies from various academic fields contributing to our understanding of creativity. The paper asserts that environment and experience determine our creativity potential and provides a new framework of seven key skills associated with creativity as well as practical tips and sample activities to promote the skills."

### **TASK:** *Cooking with ingredients of creativity*

The task is a discussion based on the book about children's creativity. For your discussion, read the Introduction (pages 4–8) and choose at least one component of creativity you would like to learn more about. The components are discussed in separate chapters:

- **Imagination & Originality**
- **Flexibility**
- **Decision Making**
- **Communication & Self-Expression**
- **Motivation**
- **Collaboration**
- **Action & Movement**

When reading the chapter of your choice, think about the educational context you work in. The book is about children's development, but you can adapt the

content to upper grades of primary education, secondary education or adult education as well.

Write a post in your diary in which you:

- ➔ add your chosen component as title
- ➔ summarize (or quote) two thoughts you found especially interesting, and explain why you found them interesting
- ➔ add two questions or aspects that you wish to study further during this course.

We highly recommend you to have a peer discussion session after the completion of this task.

### Teachers' favourite ingredients

Quotes in this section are from the book "Inspiring a Generation to Create" (see reference and QR code above)

#### **Decision Making** by János Schulcz, Hungary

Children are given heaps of information every day and it is difficult for them to sort it out based on their needs and will. As educators, we have the important role of deciding and differentiating relevant information and making useful information available for students. Any device is just a source of information and it is necessary to teach students how to use it correctly. Our important task is to make decisions and teach our students the process of finding important information so that they become independent over a period of time.

**Any device is just a source of information and it is necessary to teach students how to use it correctly**

#### **Motivation** by Susanna Maresca, Italy

"New things cannot happen if you already know everything. You have to be curious and take the risk of learning things never anticipated." I found this phrase extremely interesting because curiosity is the basis of knowledge. Curious pupils will also be motivated and interested. Curiosity is the basis of research and discovery, but how can we stir up curiosity in adolescent pupils who often have an oppositional attitude? How can we ensure that students get interested in an argument, irrespective of the time and effort they have to put in to deepen it? How can they find an intrinsic motivation in addition to the extrinsic one?



I try to give them responsibilities by discussing the terms of the assignment. In my opinion that is a big part of their motivation, because then they have control and influence over what they have to create

### **Re: Motivation**

by Anton Span, the Netherlands

This is the same struggle that I witness in my classroom (age: 10–12). They reach the age of their pre-adolescence and it is very hard to motivate them. I try to give them responsibilities by discussing the terms of the assignment. In my opinion that is a big part of their motivation, because then they have control and influence over what they have to create. Another tactic is to make goals visible. Students have to notice that they learn through the work they do. It is very frustrating to note when you make a new assignment or project, that half of the students are not motivated. I am eager to explore more around your questions.

### **Collaboration** by Edit Páll, Romania

As a primary school teacher, I often use collaborative learning. I divide students into small groups to answer questions, work on projects and learn from each other. Several scientific findings “support the common belief that collaborative work enhances children’s learning through active participation and providing valuable opportunities to work cooperatively in a safe and supportive environment.” I believe that collaboration in the classroom can help children think thoroughly and creatively about subjects, and can help them clarify ideas through discussion and be active participants and listeners too. I think that a supporting classroom environment encourages creative expression.

Collaboration develops responsibility for each other and empathy for others’ perspectives. Students learn how to criticize ideas, not people. We have all experienced it, haven’t we? Would you like to share your teaching success or difficulty about collaboration learning in your classes?

### **Motivation** by Dijkstra Guydolph, the Netherlands

“When children are intrinsically motivated, they try harder in the face of difficulty, which leads them to understand that effort leads to achievement. This in turn leads them to adopt an incremental view of their own ability”. When children have this intrinsic motivation I believe they can surmount

bigger challenges than what they thought was possible. That is why it is so important to find the right button to push. I started on the lowest level of education, but when I found my inner motivation, I completed my social work bachelor degree. How can I find that inner spark in a child? And what kind of activities can help with that?

**Action and movement** by Boglárka György, Romania

"...researchers found that the creativity for almost every student increased significantly when they walked (both indoors and outside). These findings support the conventional wisdom that physical movement, walking in particular, boosts creative ideation." "Bowers et al.'s findings indicate that individuals who participate in more unstructured sports activities are more likely to become creative adults". These quotes from the studies prove that any form of physical movement is beneficial in boosting learning processes and creative thinking. Currently, children only have the possibility to move during the one, or two physical education classes a week, and during recesses. With decreased physical movement as they grow, their motivation towards learning decreases and their way of thinking becomes less creative. I would like to learn about the methods I could use to prevent attention loss during changed settings and about the types of physical movement I could use with 10–14 year-olds.

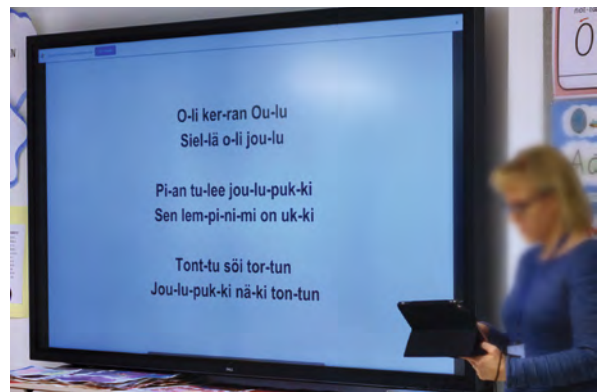
MY NOTES

*Santa Claus  
Rap written and  
interpreted by  
children in the 1st  
grade and two of  
their teachers  
at the University of  
Jyväskylä Teacher  
Training School*

## Best practices from Finnish schools – as seen by participating teachers

**Imagination & originality**

In the Finnish schools we visited, the students learnt songs about the subjects. The teacher played piano and they sang together. In Finnish language writing classes, to promote relaxation and movement the teacher used a game. The students rolled a dice and when they got a number, they looked on the board and saw what to do. For number one the children have to write something and for number five they have to jump. The focus in the schools is to be aware of how to “think.”





*Music classroom  
at the Viitaniemi  
School*

### **Motivation**

The students were intrinsically motivated in the lessons we observed. The music lesson was very inspiring as the teacher was kind and friendly. There was a mutual trust between him and the students. The whole class had a positive energy filled with joy. Music was seen as a tool of expression and through playing in a band they were also learning about cooperation, teamwork and sense of commu-

nity. In the sewing class, the children were making their own clothing for prom. They were really motivated because they wanted to wear it. They were very proud of their creative work.



*Student making  
her own evening  
dress. The freedom  
of choice applies  
to needlework  
lessons too.*

### **Decision Making**

Freedom constitutes a major component in both teachers' work and student activities. The students work in groups while multiple resources are made available to them. The teacher guides them to use the resources but gives them the freedom to choose. Such independent thinking and decision making helps the students in the future. Even the evaluation process is collaborative where the teacher and students talk about their experiences.

Children make their decisions from an early stage and it helps them to develop in argumentation in the future.

### **Communication & Self-Expression**

In the classroom, the teacher used Google Maps to explain places and showed pictures of the subject she wanted to talk about to bring more clarity to the topic. The teacher dressed-up a child as the character of Moses, and let him play the character and encouraged other children to ask him questions. Movies were played to communicate the content better to the students.

### **Collaboration between teachers and parents**

The school collaborates with parents through an online application. The teachers use this tool to update the parents about their children's behaviour, grades and homework. This enhances better communication between

teachers and parents. The school involved multiple stakeholders in their teaching process. The teachers used school assistants and student teachers to help in the classroom.

### Action & Movement

The children learn by doing and experimenting. This enhances the applicability of their knowledge and connects them to real life. The teachers made real-life connections in their teaching. For example, they conducted experiments about shades of colours, in handicraft courses the girls were sewing to make a dress. The boys were making lamp decorations for the school. There was more movement involved, appealing to the kinesthetics of the learners which also kept them engaged during the lesson.



*Digital tools enhance cooperation in Finland*



*Visiting teachers documenting as a student is working during a handicrafts lesson at the Viitaniemi School*

MY NOTES

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## Module 3: *A pedagogically conscious creation and use of resources and materials*

<https://bit.ly/2OgKsFz>



In this module you will study:

- how to adapt materials to the needs of diverse learning groups
- how to understand the background and purposes of pedagogical action, that is, what to do, when to do it and why to do it in the first place

### Resources for conscious creation

Rachel E. White: *The Power of Play*, Minnesota Children's Museum.

This report helps you understand the pedagogical implications and benefits of play and playfulness.

Although the publication is about young children's play, you can adapt the findings to other age groups as well.

#### **TASK:** *Strength in diversity*

Think of the class(es) you teach currently. How do your students differ from each other? For example, think about

- ➔ their special, unique skills
- ➔ their special interests and passions
- ➔ their struggles and things in which they need extra support

Read at least one of the recommended sources from this module to support your thinking about this issue. Write a note in which you share your thoughts about the above question and make connections between your own work and the source you have read.

### Teachers' experiences with diversity in the classroom

#### peer tutoring systems

My classes usually have approximately 24–28 adolescent students. They are heterogeneous with a variety of socio-cultural origins, skills, abilities and interests. [...] It is difficult to pay individual attention and to make sure everyone reaches a certain level since the final state exam is the same for all students. Generally, I

MY NOTES



try to adopt common strategies such as the use of summary schemes, the possibility of using ladders and keywords for oral re-elaboration of texts, invitation to read texts chosen by the students and peer tutoring systems.

*Susanna Maresca, Italy*

I teach English in lower secondary classes. Factors such as learning styles, aptitude and learning levels, and motivation towards the subject make the classroom diverse. It is hard to ensure equal participation as Romanian ESL classes have teacher student ratios of 1:30 and there is no possibility to differentiate classes according to language levels. I addressed the issue by organising supportive student group sessions and by making differentiated worksheets with QR code, “treasure hunt” sessions while I was working with the other group. Mixed ability classes provide opportunities for teachers to develop themselves professionally, as teachers need to adopt a problem solving approach to the difficulties they face and experiment with a range of teaching approaches.

**making differentiated worksheets  
with QR code, “treasure hunt”**

*Alpár Ferencz-Salamon, Romania*

I teach in a vocational school where my students come from an underprivileged background. They have diverse struggles in their families in terms of finance, poverty, broken family structures, suicides and exposure to crime. Under such circumstances, it is very difficult for them to be motivated for learning and even coming to school is a challenge. They fail to discover their special skills or abilities due to the issues they face at home. Even if the students do make some progress, there are many obstacles to their development. Some students manage to go to university, but I believe there are many more talents undiscovered because of family issues. Schools should function as safe places for students to gain interest in learning.

**Schools should function as  
safe places for students to gain  
interest in learning**

*Attila István Vári, Hungary*



if you want to paint about the industrial revolution, by all means! Have you written a poem about world war two and have the option to recite this at a memorial? Please do!

To foster creativity, I use a model which gives my students the tools to choose how they want to accomplish the goals they have set for themselves. For example: if you want to paint about the industrial revolution, by all means! Have you written a poem about world war two and have the option to recite this at a memorial? Please do! Creative teaching comes from

listening to your students, seeing them as individuals and adapting your lesson plans and forms of testing to facilitate their plans and wishes.

*Maike Bergsma, the Netherlands*

## Best practices from European Schools

### Autonomy (Finland)

*Students can choose "what to begin with and how to design it". Art class at the Viitaniemi School*

The Finnish schools we visited addressed diversity through autonomy. In a music class, the students could select the piece they wanted to learn throughout the semester and in a cooking class they could choose a restaurant they wanted to visit, and it was their responsibility to make it happen.





In a technology class, students could choose what kind of lamp to make, what to begin with and how to design it. In a math class, the teacher let the students work at their own pace. This teacher said: “don’t force anything, let students practice at their own speed and abilities.”

*The library is an open space at the University of Jyväskylä Teacher Training School*

### **Learning Environment (Finland)**

Learning space in the schools visited is customised according to the children’s needs. The library provides a perfect place for reading and students were free to pick a book of their choice and choose a spot to read. The ambience is pleasant for independent reading and the library is open all day long. Hence, students choose, decide and take responsibility.

### **Emotional environment (Finland)**

Schools we observed function as individualized spaces for children where there is respect to their individual pace without any pressure. For example, classes are divided into groups, and each group is assigned activities according to their interests and learning style. In a sixth grade classroom,





*Maths lesson, kids working in groups at the University of Jyväskylä Teacher Training School*

students were working in groups and helping each other, even though they were doing different levels of math exercises.

### **Self-assessment and reflection in school (Finland)**

In a fifth grade classroom, students completed a self-assessment questionnaire while their parents and teachers did the same. This was followed by a discussion between them. They evaluated on a scale of three (excellent, good, still need some practice) on the aspects of performance, teamwork and behaviour. They also reflected on their subject and social skills. In the end, each student designed three aims for their future development. This collaborative reflection helps students to understand themselves better.

### **Real life connection (Italy)**

Real life connection to subjects helps diverse students to relate to subject-specific concepts and understand them better. In maths, real money and discount catalogues are used as tools. For history, outdoor activities are organised to visit different parts of this ancient Etruscan city.

For arts, museums visits and theatre performances are encouraged. The teachers also invite experts from different fields to their classrooms.

### **Community involvement (the Netherlands)**

The involvement of community groups in school activities helps the students to look at school as a part of their life which in turn motivates them to attend and learn from school. The wider community in the Netherlands is deeply involved in designing school activities. For example, the art community was invited to make materials for art lessons in the schools.

### **Diverse sports (Romania)**

With student interests varying from academic subjects to sports, the school has to address the specific needs of the students. In Miercurea Ciuc, there is a program that offers swimming lessons and coaching for ice hockey and figure skating, starting at primary level. This encourages the students to identify their unique skills at a younger stage.

### **Multidisciplinary weeks (Hungary)**

With mixed ability groups, schools need to give equal importance to all skills and areas of interest. Schools organise thematic weeks as a part of a national programme. The schools choose a theme to focus on that involves multiple responsibilities like finances, digital skills, environmental consciousness, etc. This helps the students to take up different roles according to their interests and skills.

## Module 4: *Developing learner-centered indoor and outdoor environments*

In this module, you will study how to

- involve learners in designing their learning environment
- understand what learners really need and adjust teaching to that
- be playful and relaxed during the development process

### Resources to design a learning environment

*The CREATE Framework: Learning Environments to Develop Creativity.* Center for Childhood Creativity, 2018.

CREATE stands for Child-Directed, Risk-Friendly, Exploratory and Active environments providing Time for Imagination and enhancing the Exchange of Ideas. We especially recommend the chapter “Related and Notable Studies” (pages 15–19) which explain the foundations of the framework.

The video Indoor Environment Program (4 min 5 sec) shows how a student cafeteria was transformed into a multi-purpose learning and recreational space for students.

<https://bit.ly/2XbRgxr>



<https://bit.ly/2Xvd5r4>

<https://bit.ly/2qfM0ei>



<https://edut.to/2PlVhrr>



<https://edut.to/2YbPSY3>



<https://bit.ly/2g5bLXS>



### Short read recommendations:

- Jo Earp: Classroom layout – what does the research say? *Teacher*
- Brooke Markle: Reflections on Shifting to a Flexible Classroom. *Edutopia*.
- The A to Z of Flexible Classrooms. *Edutopia*.
- O’Sullivan, F. Why Finland Is Embracing Open-Plan School Design. *Citylab*.

## TASK:

### Let's design creative classrooms!

*Design Thinking for Educators* is a toolkit that makes teachers, students and other actors in school communities and municipalities aware of their role in renewing learning environments. You can find the materials you need for this task on the Design Thinking for Educators website.

- Watch the video *Why Design Thinking?*
- Read the post *What is Design Thinking?*
- Explore the video channel of “Design Thinking for Educators” and watch, for example, the following videos about the design process.

- ➔ What does being a “designer” mean to you?
- ➔ Discovery: How do you get inspired?
- ➔ Ideation: How do you generate new ideas?
- ➔ Experimentation: How do you bring your ideas to life?
- ➔ Next steps: How might you use the design process?
- ➔ Further, watch three short videos about different challenges and solutions presented by teachers: Maggie, Michael and Patrick.

**Record your answers for the following questions in a short video (30-60 second long)**

- ➔ What would be your pedagogical challenge that you would like to share?
- ➔ Have you found a solution?
- ➔ Are you experimenting with something new?
- ➔ Do you plan to change something?

You can record your video with very simple tools, e.g. with the selfie camera of your phone or the in-built camera of your laptop. If you wish, you can upload your video to our Facebook page!

<https://designthinkingforeducators.com/>



<http://bit.ly/2Lxe8RB>



<https://bit.ly/2ZFJYOU>



<https://vimeo.com/dtfe>

<facebook.com/creativeschools.eu/>



## ***Snippets from creative learning environments***

### **The spirit of a school** by Alpár Ferencz-Salamon, Romania

Our school has always been a special space due to the effect it has on the people stepping inside. Students have played a major part in designing the school environment as it encourages them to participate actively. One of the most important locations is the festivity hall, as well as the mini theatre room. Our theatre room has a major role in enhancing communal feeling as it provides space for school performances, drama and dance projects. Catch a glimpse of a Romanian school learning environment in this video!

<https://bit.ly/2Y8aX5s>



### **Student community space** by Enikő Tankó, Romania

I would like to present a former classroom turned into a community space for students at the Sapientia University in Csíkszereda/Miercurea Ciuc, Romania. It is an open space with colorful pillows, bean-bags and seats which can be rearranged. Students come here to surf the internet, to chat, to read, to listen to music or just for some quiet time of their own. Sometimes book presentations and reading clubs are held here. Take a look at the place in this video!

<https://bit.ly/2RzBPcG>



Watch more snippets from creative classrooms in our video channel!

## **Best practices from European schools**

### **An open space for learning (Finland)**

The architecture and atmosphere of the school we visited was stimulating for learning. For example, there were exhibitions in the hallways and other spaces like the library and the greenhouse. The building looks open because of the huge glass windows and ceilings. In another school, there was an open central hallway with the corridors that has lockers and places to put their shoes. Classrooms were technologically equipped with projectors, computers and tablets. The furniture inside the classrooms was modular, so the chairs and tables could be moved easily. There were several working spaces, community spaces and physical movement spaces. There were also spaces where children could practise cooking or arts and crafts. Each class was full of resources with the materials required for the

<https://bit.ly/2X4Hmc1>





*An open space for learning at the Viitaniemi School*

children to practise and learn. For example, there were a variety of instruments in the music classroom for students to explore, and the students were exposed to different tools in the technology classroom.



*"Home economics" classroom where children practice cooking and other household skills at the Jyväskylä Christian School*

The staff room was a minimalistic open space with attractive interior design and an inviting atmosphere. There was a lot of space to sit down to eat, drink coffee or chat, and there were separate spaces detached by doors for focused meetings or staff conferences. Teachers encourage children to go outside and explore the environment. The school is an open space with no fence or restriction from the other buildings in the city. It gives the feeling that the school is integrated into the city. The schoolyard was open and there was free space to play.





Large central hall  
at the Viitaniemi  
School



Dining-room at  
the University of  
Jyväskylä Teacher  
Training School



Open schoolyard at  
the the University of  
Jyväskylä Teacher  
Training School



### Creating a safe space (Finland)

The classrooms we visited were filled with an atmosphere of trust and care. Children's needs were taken into consideration in each step of the learning process. For example, different time periods were given for students to complete the exam since some of them were slower than others. In a school, while other students worked on paper with pencil, one boy used a laptop. The teacher explained that the boy had difficulties with writing on paper which made him bored and passive, so he encouraged him to use a laptop and now he is able to work intensively. There was a conscious design of connected classrooms that enhances teaching and working in mixed groups. Children across different sections of the same grade worked together on a science project. In another school, there was freedom of movement with children going to the pull-up bar to do physical activity. In another case, a student was constantly moving in the classroom and did not sit still at the desk. The teacher did not restrict her movement or ask her to sit in her assigned place. The teacher explained that student being present in the learning space and in the community in any way is more beneficial than being absent.

*Classroom settings suitable for various activities*



### **Flexibility in classrooms (the Netherlands, Hungary, Italy and Romania)**

Classrooms in the Netherlands encourage children to physically move around and there is also exercise equipment inside the classrooms. In Hungary, teachers can arrange furniture to create a flexible learning environment. Italian classrooms are small, so there is not enough space to rearrange the furniture. This is compensated for by using other rooms and spaces outside the classroom. In Romania, teachers can customise the learning environment, especially at primary level. Teachers use out-of-classroom spaces such as hallways since moving inside the classroom is not very flexible.

*Flexible classroom setting at the University of Jyväskylä Teacher Training School*



*Triangle-shaped desks at the Jyväskylä Christian School: designed for collaborative learning and flexible use.*



## Module 5:

### *Engagement and motivation of learners, teachers and parents for innovation*

In this module, we invite you to think about new ways for engagement and motivation of parents, teachers and learners:

- How to involve parents and other members of the learners' family into the learning community?
- How to enhance interaction between learners, teachers and family members?

### Resources to increase interaction

Partnerships in practice – a series of articles in *The Guardian*.

Check out some of the articles of this collection for inspiration. There are materials about peer teaching (pupils teach each other), involving parents in teaching, cooperation among teachers and many more! Some of the articles hopefully will also help you to accomplish this module's assignment.

### **TASK:**

#### ***Bringing teachers, students and parents together***

Collect innovative examples of engaging and motivating different members of local communities for educational purposes. You can use any source from this course, you can freely search for inspiration somewhere else and you are welcome to gather examples from your own experience as well. Write about your examples and experiences, answering the following questions:

- ➔ Would you like to try out something new to bring teachers, students and parents together?
- ➔ Have you already tried some projects or activities that you would like to share?

<https://bit.ly/2IGVNPj>



MY NOTES

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## Teachers' practices to promote collaboration with parents

### **School is Cool** by Gysbert Bergsma, the Netherlands

For our mentoring program "School is cool", we connect students from primary school with voluntary mentors. The mentors visit the

mentors visit the student's home every week during the last half year of primary school and prepare the student for secondary school

student's home every week during the last half year of primary school and prepare the student for secondary school. During the first

year at secondary school, the mentor keeps supporting the student in his or her school work and in improving his or her social skills. This gives the student a better start in secondary school. The mentor also motivates the parents to attend school meetings. The mentor also builds parents' confidence in talking to teachers by preparing them or going to the meeting together.

### **Engaging and motivating parents and members of local communities** by

Edit Páll, Romania

I believe it is important to get parents (even grandparents) involved in children's learning. Their involvement can improve students' behavior, achievement and attendance. Some ideas for involving the community are parent-teacher conferences, workshops, open days, trips, volunteering in school, designing learning environment, or invitation to school or

open days, trips, volunteering in school, designing learning environment, or invitation to school or class events

class events. One of my most interesting experiences was collaboration with a local association whose coordinator is a grandmother of a student from our class. Through this collaboration, we found a new partner to sponsor our school activities.

### **Open days** by Domonkos Németh, Hungary

Parents feel discomfort when they are not aware of their role in the school. We should use workshops and other school-based programs to help parents learn about life in classrooms. For example, we have "open days" in our primary school when all parents are welcome to the school and encouraged to visit any lessons. Sometimes they also read with their children and speak to teachers. They are free to discuss their children or participate in any activities in the school.

MY NOTES

**Re: “Open days”** by János Schulcz, Hungary

Open days are very positive events for students, teachers and parents. Parents can look after their children, and they can be participants in the school experience.

**Examples of involvement** by Susanna Maresca, Italy

In our school, parents usually attend talks and parent representatives attend monthly meetings with all the teachers. I involved one of the parents in classroom activities. One student's mother, who is a meteorologist, taught a lesson on weather. During theatre performances, parents are involved in the creation of costumes or organising lights and microphones. At literary shows, parents help by preparing sweets, coffee and tea. When the class participated in a journal competition to write an article for a local newspaper, the students interviewed their parents who were experts in various fields. Furthermore, every year we participate in the spring festival of the neighborhood. The students exhibit their work, sell craft objects and open a kiosk for snacks. This enhances a close bond with the community.

One student's mother, who is a meteorologist, taught a lesson on weather

## Best practices from European schools

### Trust and Teamwork (Finland)

According to our school visit experience, deep trust exists between the school management and teachers, teachers, student teachers and assistant teachers, but most importantly between teachers and students. This trust enhanced teamwork as the teachers, student teachers and assistant teachers collaborated smoothly and were very well organized. Each of them were motivated to work and well prepared to cooperate with the team. This teamwork reflected in their students' work. Students learn the meaning of leadership and collaboration.

deep trust exists between the school management and teachers

**Building a sense of community (Italy and the Netherlands)**

In Italy, teachers organise projects in collaboration with the local community. Students are involved in the process during different stages of the project. At the Plataan school in the Netherlands, children built a game

students worked with an artist to design a place where everyone was welcome after school

room in their school. Children who were elected by their fellow students worked with an artist to design a place where everyone was welcome after school. The children began with exploration, investigation and then brainstorming. After that, they organized a meeting with different companies to come together and help with the project. Finally, they decorated the room with their own ideas. The Mayor was invited to the opening ceremony. This game room was a product of collaboration.

EVERYDAY  
Creativity

# Workshop Materials

## 1. Creativity and Assessment

*Professor Mirja Tarnanen (Department of Teacher Education, University of Jyväskylä)*

A teacher in contemporary society needs diverse skills to be able to support learning of all students. Our digital world demands mastering different devices and applications as well as the development of technology-enriched pedagogy. Further, amid societal and educational changes teachers need versatile interaction skills and they need to be capable of supporting students' multiliteracy skills and their language awareness. Teachers cooperate not only with their students but also with other teachers, guardians and other stakeholders. Students can expect to be treated equally and to be motivated by their teachers to participate in school and lesson activities. In order to develop their own expertise, teachers should be engaged in lifelong learning and research-based orientation throughout their career.

teachers should be engaged in lifelong learning and research-based orientation throughout their career

*Promoting creative expertise – Bridging pre-service and in-service teacher education (ULA project)*

The aim of the project is to explore how an enduring supportive model can be created and implemented for professional activities to support the development of professional learning and enhance the agency of and collaboration between teachers, teacher educators, and student teachers. Professional learning is seen as a complex process that requires emotional and



cognitive involvement, both individually and collectively; facing and challenging beliefs; and raising awareness of policy environments and school cultures, including resources for changing them (e.g., Guskey, 2002; Avalos, 2011). This project bridges pre- and in-service teacher education to promote professional learning.

### Outstanding creative achievement involves being different, testing known limits, attempting difficult jobs, making honest mistakes

According to Torrance (1988), creativity is the process of sensing problems or gaps in information, then identifying the difficulties and seeking solutions through trial and error or through forming

hypotheses. One needs courage to be creative. Just as soon as one has a new idea, one is a minority of one. And being a minority of one is uncomfortable – it takes courage! One of the most powerful wellsprings of creative energy, outstanding accomplishment, and self-fulfillment seems to be falling in love with something – one's dreams, one's image of the future. Outstanding

creative achievement involves being different, testing known limits, attempting difficult jobs, making honest mistakes and responding to challenge.



The purpose of assessment according to the Finnish Core Curriculum for Basic Education (FNCC 2016) is to create a supportive atmosphere that encourages pupils to try their best. Assessment should be a dialogical and interactive way of working that promotes pupil participation. During the process of assessment, pupils' individual learning processes should be understood and throughout the learning process their progress should be made visible. All the assessment should be fair, ethical and versatile. Information that is obtained from assessments should be used in planning instruction and other school work. It needs to be borne in mind that most assessment takes place in the context of teacher/pupil interaction.

**The purpose of assessment according to the Finnish Core Curriculum for Basic Education (FNCC 2016) is to create a supportive atmosphere that encourages pupils to try their best**

Assessment must be based on the objectives set in the core curriculum and the more detailed objectives of the local curriculum. Pupils and their achievements are not compared to other pupils. Assessment shall not focus on the pupil's personality, temperament or other personal characteristics. Pupils must be aware of the objectives and assessment criteria. Versatile assessment methods shall be used. Following these principles, education can promote the capacity for self-assessment by giving space for reflecting on one's learning and progress. Thus, assessment discussions are frequently used, positive feedback is given and students' successes are identified.

**education can promote the capacity for self-assessment by giving space for reflecting on one's learning and progress**

Formative assessment is a part of daily instruction and school work. The teacher observes and interacts with the students in the context of the learning process. Formative assessment also includes peer- and self-assessment. Making the learning process visible and promoting learning helps the students to perceive and understand: (1) what they are expected to learn, (2) what they have already learned, and (3) how to promote learning and improve performance.

Summative assessment takes place at the end of a learning cycle: learning outcomes are communicated in reports, certificates or assessment notes. It can also take place at the end of each school year in the form of verbal

assessment or numerical grade. According to the Finnish system, verbal or numerical or a combination of these two systems occur in grades 1–7, while in grades 8–9 numerical grading is introduced. A numerical grade is an average summative assessment compared to the objectives of each subject.

How to support creativity through assessment? Assessment does not need to be necessarily a negative force if it is used to motivate students and enhance students' agency. It is essential to raise awareness among teachers so that they recognize which assessment practices may diminish creativity and what they can do to ensure that their use of assessment supports student creativity.

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EVERYDAY  
Creativity

## 2. Checkpoint Leonardo Network (CPLN)

*University Teacher Anna-Leena Kähkönen and  
Postdoctoral Researcher Antti Lehtinen (Department of  
Teacher Education, University of Jyväskylä)*

Checkpoint Leonardo Network (CPLN) is part of the LUMA Finland project funded by the Ministry of Education and Culture. LUMA is an abbreviation that comes from the words *luonnontieteet* (natural sciences) and *matematiikka* (mathematics). There are 13 LUMA centers in the country which “inspire and motivate children and youth into mathematics, science and technology through the latest methods and activities of science and technology education”.

CPLN has three main goals. Firstly, it aims to develop working methods of teacher education by giving experience of using varied learning environments, collaborating with people outside the school, and project-based learning. Secondly, it aims to characterize the school subjects and utilize their specific features in a learning project by juxtaposing and finding alignment across subjects. For example, pairing Mathematics & Visual Arts, or Science & Visual Arts. And finally, it provides free, teacher-friendly materials for investigations that align with the Finnish National Core Curriculum for Basic Education (FNCC).

**pairing Mathematics & Visual Arts,  
or Science & Visual Arts**

<https://www.luma.fi/en/centre/>



*Visiting teachers  
planning projects to  
enhance creativity*

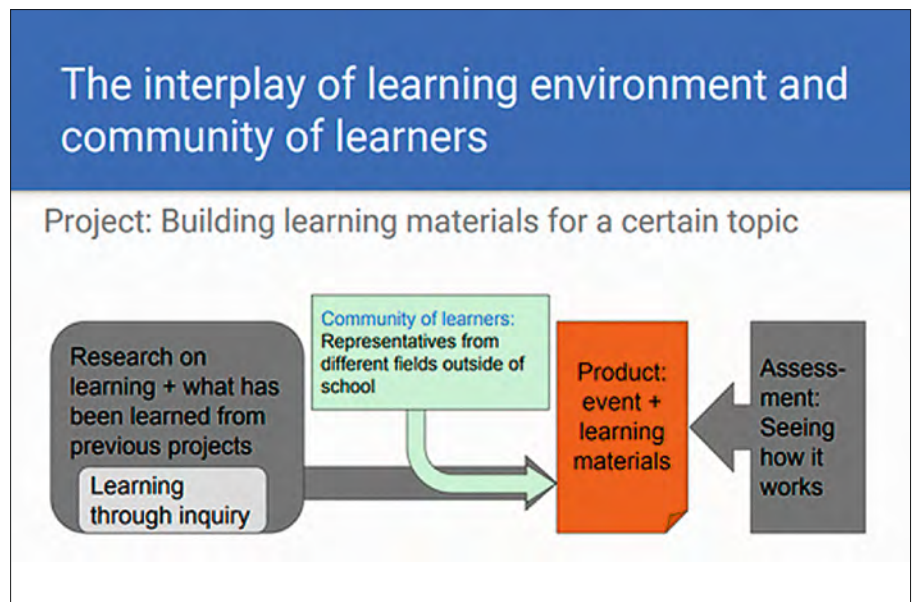
## Student teachers plan project-based learning processes and teacher educators help them in planning and finding collaborative schools

The collaborators in our project were (1) student teachers from elementary and secondary schools who often collaborate on school projects, (2) teacher educators and researchers who are developing a model of

guidance for project based learning, guide students, organize events and teacher professional development events, and (3) a steering group which includes researchers, teachers, a social work representative and

museum curators. Student teachers plan project-based learning processes and teacher educators help them in planning and finding collaborative schools. Members of the steering group offer their expertise, help to find new contacts (both in-school and out-of-school) and share their ideas for action and learning environments.

This workshop helped participants to recognize new opportunities for collaboration within their school community, among schools and with out-of-school organizations or firms. It offered a framework in which communities of learners stand in the middle regardless of their institutional background, and they work together on inquiry-based projects to organize events and create new materials. The figure below summarizes the process of collaboration in this framework:



## The Workshop activity

The workshop called attention to the many existing ways of collaborating with parents and parents' workplaces, for example. Teachers are already familiar with one-sided encounters with the society, such as children interviewing a police officer or children performing to nursing home residents. These social encounters can be made more fruitful when the element of collaboration is introduced. Perhaps the children, together with the police officer, see fit to design a safe cycle route to school. Or the children and nursing home residents may decide to make reading hour more interesting and start a book club to introduce their favorite books from different "eras". Developing such activities where both parties work together to achieve a shared goal, the teachers' professional lens also changes as they recognize more and more possibilities for collaboration and acting together with out-of-school communities. Of course the possibilities are not endless; it might be almost impossible to invite certain people to the classroom, for example, but students can also go and visit out-of school locations and communities.

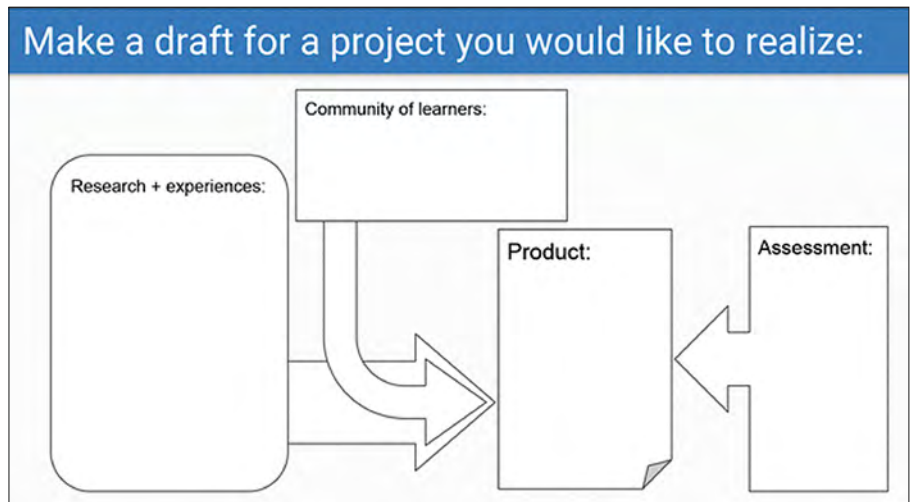
activities where both parties work together to achieve a shared goal

Keeping the above considerations in mind, workshop participants worked on project plans with the help of the following guiding questions:

- How would this look like at your community / school?
- Whom could you collaborate with?
- What possibilities are there around you?

EVERYDAY  
Creativity

To enhance discussion, the participants used a scheme to put their ideas in:



This planning process can then be replicated several times whenever new initiatives are on the horizon. The guiding questions and the scheme can be useful in planning, and can of course be adjusted to local needs and preferences.

## References

CPLN project description featuring related publications: <https://bit.ly/2Ley1f8>

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### 3. Multidisciplinary and Phenomenon-based Learning in a STEAM Framework

*Postdoctoral Researcher Kristóf Fenyvesi (Finnish Institute for Educational Research and Department of Teacher Education, University of Jyväskylä)*

#### Summary

In this workshop, participants joined a phenomenon-based, multidisciplinary Science, Technology, Engineering, Arts and Mathematics (STEAM) learning activity which included constructing individual snowflake designs. The event employed materials developed by the Experience Workshop International STEAM Network ([www.experienceworkshop.org](http://www.experienceworkshop.org)), according to phenomenon-based and multidisciplinary approaches recommended by the *Finnish National Core Curriculum for Basic Education* (FNCC). The workshop material can be downloaded from Experience Workshop's collection of resources: look for "Snowflake Science" at

#### Background

As a brief introduction to our workshop, we discussed the lessons learned from Experience Workshop's formal and non-formal learning events and research projects focusing on STEAM learning. After the introduction, we tried out a module from an Experience Workshop STEAM learning activity, concentrating on physical, chemical and geometrical properties of snow crystals, and used this experiences to make our own, creative, artistic snowflake design.



*Visiting teachers are designing snowflakes*

[http://  
experienceworkshop.  
org/resources](http://experienceworkshop.org/resources)





FNCC positions phenomenon-based and multidisciplinary learning as key pedagogical tools to develop “transversal competences”. Transversal competences support the experience of phenomena from the perspective of

### initiating multidisciplinary learning projects strengthens students’ participation

various school subjects. According to FNCC, multidisciplinary learning is supposed to provide opportunities for every student to engage in complex exploratory work focusing on topics of their interest. Based on this approach, FNCC prescribes that education providers must ensure that pupils’ studies include at least one multidisciplinary learning module every school year (FNCC, p. 33). According to FNCC, initiating multidisciplinary learning projects strengthens students’ participation and offers opportunities for involvement in the planning of objectives, contents and working / learning methods of the studies. It brings up issues that students find meaningful and interesting, and creates opportunities for discussing and working on them. Multidisciplinary learning provides additional opportunities for studying in different groups, as well as with students of various

### students can practice agency that is consistent with a sustainable lifestyle, and inspires the students to act in a manner that contributes to the community and society

ages and with several different adults. It offers opportunities for combining what the pupils have learned outside school with their schoolwork. According to FNCC, multidisciplinary learning gives space for intellectual curiosity, new experiences and creativity and challenges students to engage in many types of interaction and situations, which reinforces the application of knowledge and skills in practice in various contexts. Through multidisciplinary learning students can practice agency that is consistent with a sustainable lifestyle, and inspires the students to act in a manner that contributes to the community and society. (FNCC, p. 34)

### Lessons Learnt from Research

A crucial element in multidisciplinary learning processes is the idea of working on projects wherein students actively participate in planning and selecting the lessons’ content, the learning methods and practices to be applied. Maintaining the students’ sense of motivation and engagement remains the key to establishing their understanding of the goals and having a clear perception of the significance of learning about the given topic. These aspects are closely related to Mihály Csíkszentmihályi’s term “flow”, which describes

engagement and concentration in study or work – characterized by complete absorption in an activity.

Education that focuses on methods that keep students isolated from real problems and from pursuing their own goals can no longer be the norm (Salmi et al., 2015). Breaking down 'subject silos' by developing multidisciplinary and phenomenon-based forms of learning, such as the extension of STEM into STEAM wherein the Arts are integrated into problem-solving, adds a creative and human dimension which can bring learning to life (Burnard et al., 2015). Furthermore, the so-called, "Re-humanization" of science / mathematics, through an emphasis in creativity and play, holds great promise for making progress towards more equitable and accessible science / mathematics for all.

Breaking down 'subject silos' by developing multidisciplinary and phenomenon-based forms of learning

### Workshop activities

During the workshop participants were invited to create snowflakes with tubes and connectors. This provided an experience wherein they could incorporate their creativity, embedded in a scientific environment. Further, they brainstormed other activities that would enhance children's learning.

### References

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## 4. Pedagogy, ICT and creativity

*Senior Researcher and Adjunct Professor Mikko Vesisenaho  
(Department of Teacher Education, University of Jyväskylä)*

### Goal

This workshop invited participants to reflect on their use of Information and Communication Technology (ICT) in different life contexts. In doing so, the workshop emphasized that some kind of flexibility is needed in ICT use, so that we need to renew and adapt our ICT practices to new contexts, challenges and opportunities. Such renewal and adaptation is likely to lead to increased creativity in professional work and other life contexts as well.

### Background

ICT has been an integral part of education for decades. ICT can be approached e.g. as a communication tool, a cognitive tool or as a resource (Kukkonen & Vesisenaho 2000). Further, in applying ICT in education, there are three factors that contribute to each other: visualization, collaborative knowledge building and personalized learning (Kaisto, Hämäläinen&

visualization, collaborative knowledge building and personalized learning



*Effective and impactful use of technology at the University of Jyväskylä Teacher Training School*

Järvelä 2007). Because of the rapid development of technology, learning ICT skills demands continuous self-direction, responsibility, motivation, self-reliance and problem solving skills. However, for a teacher it is not enough to have only ICT skills: they also need pedagogical awareness to fully understand the effective (and impactful) use of technology.

pedagogical awareness to fully understand the effective (and impactful) use of technology

According to Vesisenaho and Dillon (2013), the development of ICT use in education can be divided into four phases:

1. Import: taking a technology, product or idea and placing it into another environment without considering the change of context.
2. Transfer: taking a technology and reusing it in another environment where the context is appropriate.
3. Apply: transferring a technology to a new environment and applying it to different areas in new contexts.
4. Contextualise: transferring and applying a technology so that it takes into account and supports the environment in old and new contexts.

According to Vesisenaho (et al., 2017) and Dillon (et al., 2013), the process of creative use of ICT begins with a development of (or coming up with) ideas (creativity, improvisation), which then can be further elaborated by the use of technology for linking ideas or people (capturing, filtering, consolidating, transferring). In the third stage, the further developed ideas are applied in different platforms or in new contexts (localization, contextualization, personalization).

### Workshop activities

The workshop included two group discussions to enhance reflection on personal ICT use. We recommend using these questions in your self-reflective diary and/or in your peer discussions (see Vesisenaho & Dillon, 2013).

First, consider your personal pathway and present ICT use:

- ➔ How have I learned and developed my ICT skills?
- ➔ How do I use ICT in my leisure time?
- ➔ How do I use ICT in my professional work?

Then think about past and future changes in your ICT use:

- ➔ Have I applied ICT in my work in a personalized (own) way?
- ➔ Have I modified the way I originally used ICT in my work / teaching?
- ➔ What would be an innovative (next generation) way I could use ICT in education?

The modules in this Handbook also help you think about the various relevant contexts which would offer opportunities for creative applications of ICT for pedagogical purposes.

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## 5. Digital storytelling as a pedagogical method

*University Teacher Olli Merjovaara  
(Department of Education, University of Jyväskylä)*

### The goal of the workshop

The goal of the workshop was to present the use of digital storytelling as a pedagogical method with learners of many different age groups. In the workshop, the main theoretical background and research behind digital storytelling were presented and in the end participants created a digital story of their own.

### Theoretical background

Simply put, digital storytelling is creating multimodal stories by using digital tools. The length of a digital story is usually short, 3–5 minutes, and the story often includes the voice of a storyteller (Robin 2016). Digital storytelling can be divided into three different categories: personal narratives, historical documents, and learning or informative stories (Robin, 2006). By creating different types of stories, digital storytelling can be utilized in learning in many different ways, from supporting one's own reflection to presenting learned content.

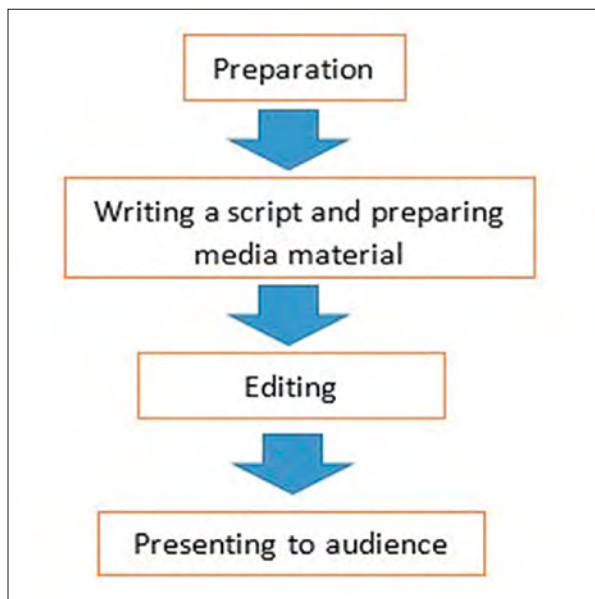
creating multimodal stories  
by using digital tools

Digital stories can be created with a wide variety of different digital tools, but the recent technological development in mobile devices has made producing digital stories easier than ever before. As new technologies have become less expensive and more widely available to bigger audiences, digital storytelling has become an even more powerful tool of communication. Digital storytelling has many benefits as a pedagogical method and it has been utilized in teaching and learning in many different contexts from primary school education to higher education. It has been studied in the context of language education (Razmi, Pourali & Nozad 2014) and enhancing writing skills (Sarica & Usluel 2016).

## Digital storytelling has been found to have a positive influence on learners' motivation

Digital storytelling has been found to have a positive influence on learners' motivation and it has also been found to foster different 21<sup>st</sup>-century skills such as creativity, communication skills, and innovative and critical thinking (e.g. Dogan 2011). In the digital storytelling process, the planning is as important as producing the final product. The digital storytelling process can be divided into four stages: (1) preparation, (2) writing a script and preparing media material, (3) editing, and (4) presenting to an audience.

*The process of digital storytelling*



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## The workshop activity

In the workshop participants were given a task to create a digital story that shows the highlights of their ongoing visit to Finland. A web-based application called Book Creator was used (<https://bookcreator.com/>). The main features of the application were explained to the participants before they started experimenting with the application and creating their own stories. Many participants commented after the storytelling process that they already saw opportunities to utilize digital storytelling in their work.

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## 6. Learning environments: Finnish approaches and practices

*Postdoctoral Researcher and Adjunct Professor  
Tamás Péter Szabó (Department of Teacher Education,  
University of Jyväskylä)*

### Goal

The goal of this workshop was to help teachers think about the impact of physical environments on learning and to further build their identity as designers. The workshop also shared some principles and practices of Finnish education with regards to learning environments.

### Background

Experiences with different learning environments are crucial in human learning. When exploring new sites, using tools or doing whatever activity, people interact with their material environment and other people in various ways. In such interactions, people learn about the surrounding world and themselves at the same time, and

“the knowledge, skill and confidence to use the environment to carry out one’s own goals and to enrich one’s experience”



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build a so-called environmental competence which means “the knowledge, skill and confidence to use the environment to carry out one’s own goals and to enrich one’s experience” (Hart 1979: 344).

According to the Finnish National Core Curriculum for Basic Education (FNCC 2016: Chapter 3.4), “learning environments must offer possibilities for creative solutions and the exploration of phenomenon from different perspectives”. Further, the core curriculum emphasizes that students should take part in developing their learning environments, and their individual needs should be taken into account in the design process (FNCC 2016: Chapter 3.4). In accordance with these principles, it is now common in Finland to organize workshops with the participation of students, parents, teachers, architects and interior designers when a new kindergarten or school is being planned, or when a substantial re-design process is launched. For example, the Teacher Training School of the University of Jyväskylä recently organized a multidisciplinary project involving interaction, ICT, arts, culture, literacy and work life skills to renew the Science classroom and the nearby corridor. The students prepared plans and voted for their preferred versions. The most popular plans were finalized by professionals, and a company re-furnished the classroom and the corridor (Mäkelä 2018).

**organize workshops with the participation of students, parents, teachers, architects and interior designers when a new kindergarten or school is being planned**

Learning environments can be found and created everywhere. School buildings and classrooms, museums and libraries are custom-designed learning environments (Szabó 2015), but any environment can offer learning opportunities; for example, one can learn languages on the street, reading signs (Sayer 2009), or students can solve various tasks while they move in natural and built environments and use various digital tools (Zheng et al. 2018).

**any environment can offer learning opportunities**

## Activities

Learning environments are also places of emotions, identity and belonging. Interaction taking place in various environments influence how we think about them and how we relate to them. The next activity helps you think about your own relationship to school environments.



1.

Imagine you are again a primary school pupil in the school of your childhood. Close your eyes and recall your memories.

- ➔ How do you feel?
- ➔ Where are you? What do you see around you?
- ➔ What can you hear?
- ➔ Are there any particular scents that you can smell?
- ➔ What do you do? What do others do?
- ➔ Are there particularly important objects, signs, learning materials, etc. that you see and/or use?

Share your time travelling experience with somebody (a colleague, a friend, a family member, etc.).

2.

Now come back to the present: to your school and classroom(s) in which you teach.

- ➔ What feels/looks similar to what you have just recalled?
- ➔ What feels/looks different? What is the difference?
- ➔ What has been your role in making that difference?
- ➔ Is there anything that would need to be changed?

To develop your thoughts further, the freely available *Design Thinking for Educators* toolkit (<https://designthinkingforeducators.com/>) as well as

MY NOTES



the tasks and teachers' stories in Module 4 help you plan and implement change in learning environments in which / with which you work.

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## 7. What do young people seek in their process of empowerment? Mentoring as applied by School's cool Fryslân

*Social Entrepreneurs Gysbert Bergsma and Gydolph Dijkstra (StichtingVerbindMij)*

### Background and motivation

Mentoring is used in a wide variety of ways across society. It is a form of coaching and networking and makes an essential contribution to the growth and success of an individual. Young people are matched with voluntary role models (mentors) from the local community.

Young people are matched with voluntary role models (mentors) from the local community

Mentoring provides recognition and acknowledgement. It offers role modelling and stimulus and gives personal attention to the participants. The participants – mentees – achieve their goals faster when they feel supported and encouraged by someone who has travelled a similar path before. Students make use of the success strategies of the mentor. The strength of mentoring lies in the fact that all parties benefit from it. The mentee gains confidence and has the feeling of not standing alone. The mentor develops skills as a leader, trainer and coach.

The mentee gains confidence and has the feeling of not standing alone. The mentor develops skills as a leader, trainer and coach

Mentoring brings an additional encouragement for participating youth to realise their career ambitions and life aspirations. If students lack a positive role model and personal attention in their existing private network, a mentor can help with dilemmas in the field of personal leadership, education or career. A mentor has the role of counsellor, guide, coach, teacher and sponsor.

### Workshop activities

During the Everyday Creativity training week, Gysbert Bergsma and Gydolph Dijkstra zoomed in on their mentoring program "School's cool Fryslân". In this program, students aged 11 to 13 transitioning from primary to secondary school are matched with volunteers. These volunteers help with





defining learning goals, building social skills and stimulate creativity by offering a new perspective on questions that the students may have during this important phase of transition.

*Workshop on mentoring*

***Do you need more information?***

Feel free to send an email to [fryslan@schoolscool.nl](mailto:fryslan@schoolscool.nl)

# Developing creativity – a follow-up

## Introduction and overview

Course participants started planning their local development projects during the last day of the intensive week in Jyväskylä. They carried out their projects between January and April 2019 in their schools. They led their projects individually but often cooperated with colleagues, enhancing creativity in their school and in their own pedagogical practice.

According to course instructions, the follow-up projects included the following elements:

1. identify a pedagogical challenge which is relevant for the local school community;
2. plan a local action to address the challenge;
3. realize the local development project, try to cooperate with as many participants as possible;
4. evaluate the implemented action;
5. reflect on how the module portfolios enhanced planning, implementation and evaluation; and
6. consider sustainability and future actions.

Teachers submitted reports on their follow-up projects. We have edited (mainly condensed) them for this Handbook. We have also organized the material into the following color-coded categories which describe different types of changes that the follow-up projects initiated:





### Types of changes:

- Pedagogical thinking (e.g. student autonomy, role of student...)
- Pedagogical change (e.g. student-centered pedagogy...)
- Learning space, learning environments, educational spaces
- Pedagogical tools (e.g. apps, materials...)
- Pedagogical approach (e.g. collaboration, co-teaching, cooperation, interdisciplinarity, learning by doing...)

In addition to the types of changes, we have also found different goal settings that the teachers wanted to pursue during their projects. The main goals were identified based on the reports, and they are also colour coded.

### Main goals:

- Focus on community building, cooperation between students, teachers and parents
- Focus on students' autonomy, empowering students, improving students critical thinking, placing students at the centre
- Learning by doing, exploratory learning, experimental learning, students' own curiosity and creativity
- Rethinking the use of space
- Self-reflection, self-knowledge
- Differentiation
- Teacher as facilitator

**Table 2.** summarizes the follow-up projects. After this table you will find detailed and illustrated descriptions of each follow-up project in alphabetical order of the surname of the teachers. We hope that the follow-up projects will inspire you to carry out your own project.

**Table 2. An overview of follow-up projects**

TEACHER	TYPE OF CHANGE	SHORT DESCRIPTION OF THE FOLLOW-UP PROJECT	MAIN GOALS
Barbadori, Letizia (IT)	<u>Pedagogical tool</u>	Scratch: Program to help with coding.	<u>Community building, cooperation</u>
Bergsma, Gysbert (NL)	<u>Pedagogical tool</u>	A pedagogical tool that makes the learning process more visual for the children.	<u>Self-reflection, self-knowledge</u>
Bergsma, Maaike (NL)	<u>Pedagogical thinking</u> <u>Pedagogical approach</u>	Concentration on the well-being of the students and the learning process rather than results.	<u>Autonomy of students</u>
Boomsma, Joop (NL)	<u>Cultural change</u>	Inside and outside school – creating more community educational spaces.	<u>Cooperation between teachers and students</u> <u>Rethinking the use of space</u>
Bruno, Serena (IT)	<u>Pedagogical approach</u>	Connection with action: scientific boxes that contain a summary map, quizzes, insights and curiosities.	<u>Cooperation between students and teachers</u>
Dijkstra, Guydolph (NL)	<u>Pedagogical tool</u>	Twister tool for students to express their feelings towards school subjects.	<u>Self-knowledge</u>
Ferencz- Salamon, Alpár (RO)	<u>Pedagogical approach</u>	Interdisciplinary projects with phenomenon-based approach.	<u>Cooperation between students and teachers</u> <u>Critical thinking</u>
Földváry, Ágnes (HU)	<u>Learning environment</u> <u>Pedagogical change</u>	Reorganising and redesigning learning spaces: classroom and whole school.	<u>Empowering students</u> <u>Rethinking the use of space</u>
György, Boglárka (RO)	<u>Pedagogical approach</u>	Students learn collaborative problem-solving and teachers challenge themselves in building bridges between subjects.	<u>Learning by doing</u>
Maresca, Susanna (IT)	<u>Pedagogical approach</u> <u>Learning environments</u> <u>Cultural change</u>	Playing with fairy tales (medieval poetry) and holding a Literary coffee event: medieval poetry came alive in a recital.	<u>Autonomy of students</u> <u>Focus on the community building</u>

TEACHER	TYPE OF CHANGE	SHORT DESCRIPTION OF THE FOLLOW-UP PROJECT	MAIN GOALS
Németh, Domonkos (HU)	<u>Pedagogical thinking</u> <u>Pedagogical approach</u>	Children at the centre of the school and a realization that every teacher is a language teacher (English in everyday life).	<u>Highlighting the role of students</u>
Páll, Edit (RO)	<u>Pedagogical approach</u> <u>Learning environment</u>	A week long project, during which activities consist of different kinds of games and creative pursuits.	<u>Cooperation between teachers and parents</u> <u>Students' curiosity and creativity</u>
Ráduly, Mária Szidónia (RO)	<u>Pedagogical approach</u>	Four days with four different elements: students made experiments with different elements.	<u>Learning by doing, experimental learning</u>
Schippa, Alessandra (IT)	<u>Pedagogical approach</u> <u>Cultural change</u>	Use of maths to learn everyday skills. Science, Art and History topics through English.	<u>Autonomy of students</u> <u>Learning by doing</u> <u>Teacher as a facilitator</u>
Schulcz, János (HU)	<u>Learning environment</u> <u>Pedagogical tools</u> <u>Pedagogical approach</u>	Students design a family holiday for their family and teacher starts the use of Google Classroom.	<u>Improving students' critical thinking</u> <u>Rethinking of the use of space</u>
Span, Anton (NL)	<u>Pedagogical tool</u> <u>Pedagogical approach</u>	Breaking down group work in a group discussion rather than presenting in front of the classroom.	<u>Student autonomy</u> <u>Differentiation</u>
Szalai, Zita Andrea (HU)	<u>Pedagogical thinking</u>	Supporting the writing skills of children with learning difficulties.	<u>Differentiation</u>
Tankó, Enikő (RO)	<u>Pedagogical approach</u>	The Da Vinci Bridge: students build a bridge out of twelve pencils without using any glue or other adhesive material.	<u>Learning by doing</u> <u>Cooperation between teachers</u>
Ugolini, Francesca (IT)	<u>Learning environment</u> <u>Pedagogical approach</u>	Use of different spaces inside the school for playing learning games. Secondary teachers working with primary teachers: learning laboratories.	<u>Rethinking of the use of space</u> <u>Cooperation between teachers</u>
Vári, Attila István (HU)	<u>Pedagogical tool</u>	Individual portfolio: assessment for students in vocational education.	<u>Self-reflection, self-knowledge</u>

## Summaries of follow-up projects

### Scratch and the metaphor of the theater

*Letizia Barbadori, Italy*

Type of change: Pedagogical tool

Main goals: Community building

Scratch is a platform that allows you to learn programming. The ability to write computer programs is an important part of literacy in our society.

learn important strategies to solve problems, to create projects and to communicate their ideas

Kids who learn to code by using Scratch learn important strategies to solve problems, to create projects and to communicate their ideas.

With Scratch it is possible to tell interactive stories, carry out questionnaires, create video games and all this in a very simple and fast way.

The first step was to test the ground to check if and to what extent my project could meet my students' needs. I started by briefly illustrating the tool and explaining how it was born, what can be done with it, etc. and I got positive and encouraging feedback. I also encouraged my students to attend some meetings organized in our city so that they could test it.

The second step was the verification of the feasibility of the project from a technical point of view. During our visit to Finland we had the opportunity to visit different Finnish schools that were presented to all of us as an "ideal" reality in the world of education. We saw all kinds of classroom equipment and teachers cooperating with each other that can contribute to teachers' work and make students feel supported. Luckily the institute where I work is equipped with everything necessary anyway, so this aspect was another point in favor of my idea.

Scratch can indeed be considered as a metaphor for theater

This project developed over four months and the first step required basic training in getting to know and use of the platform. In this first part

the students aged 10 joined and were supported by the teacher but they also had the opportunity to experiment, to make mistakes and to try to correct themselves. In order to work with Scratch, we decided to represent a story previously read and examined together in the classroom. It is a bit like writing a work to be performed at the theater. Scratch can indeed be considered as a metaphor for theater.

We formed small groups of four or five children, making sure that they were subdivided in a balanced way, so that they could help each other by sharing individual skills and competences. I believe this project can be considered a natural extension of the scientific and mathematical approach of the Montessori method. In fact, rigor and logic are the foundations on which they first built their knowledge and then their mathematical and logical skills.

Another aspect in my opinion significant to the project is represented by the fact that, if on the one hand the "Montessori children" are given considerable freedom in the timings and in the manner of execution of their tasks, on the other side coding requires a lot of rigor; but all this is, in my opinion, a demonstration of how it is possible to create a path and reach the same result by following different procedures.

create a path and reach the same result  
by following different procedures

Regarding my future actions, I think I will extend the proposal to other classes, not only in my institution but also in other schools. As I wrote before, working with Scratch means joining a community and therefore this will allow us to collaborate and cooperate with other institutions and thus will expand our network of contacts.



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## Implementation of Everyday Creativity in Friesland

*Gysbert Bergsma, the Netherlands*

Type of change: Pedagogical tool

Main goals: Self-reflection, self-knowledge

We run a mentoring program for primary school children who go to secondary school. Sometimes it can be difficult for the volunteer mentors (informal teachers) to make the learning process visual for the children. During one of our thematic meetings for mentors we asked them for their input on what they wanted and what worked for them. We collaborated with mentors and students to develop a tool to make the learning process more visual. We based this on a tool that we had seen in Finland.

### a tool to make the learning process more visual



In a different thematic meeting we presented the developed tool to the mentors and asked them to use it in their mentoring sessions with students. The mentors said that it helped the students to understand what subjects they liked or did not like and if they found these subjects difficult. In the picture below you can see the tool. It can be used in different ways. Children can put a dot on the map, with on the vertical axis indicating how easy or difficult they find the subject and the horizontal axis how much they like or dislike the subject.

**For example:** I like maths, but I find it difficult. Also within subjects, you can separate out different topics. If you talk about learning English, for example, you can focus separately on grammar, spelling, listening, speaking, etc.

After we tested the tool with students and mentors, we sent the tool to all the mentors of our program. This is just one example of a tool that we developed. The school visits and Modules 2 and 4 were really helpful in the process. During the school visits, I focused on the learning environment. We saw different tools that were new to us and useful for our mentors.

Our future mentors will be getting these tools and information during the introduction meeting and first meeting with their mentees. We also use these tools during our intake process with children; you can read more about this in my colleague Guydolph Dijkstra's report.

## **Working formatively in our school. An implementation based on our experiences in Finland.**

*Maaike Bergsma, the Netherlands*

Type of change: Pedagogical thinking, Pedagogical approach

Main goals: Autonomy of students

I choose to invest my skills and knowledge to help my students see the bigger picture: it is not the goal, but the journey. I want every one of them to feel accomplished and successful, and this happens when you set individual and personalized goals, no matter how small they may seem. For the pedagogical challenge, I have chosen to focus even more on how to map out the students' learning process. I would like to introduce formative evaluation, working with goals and differentiation, to my colleagues.

**set individual and personalized goals,  
no matter how small they may seem**

I have created a "goal planner" for my students on which they can track their own learning process. They start with the goal, next up is the ways in which they could achieve this goal, then when the deadline is and lastly where they can find extra materials for further practice.

**"goal planner" to track their  
own learning process**

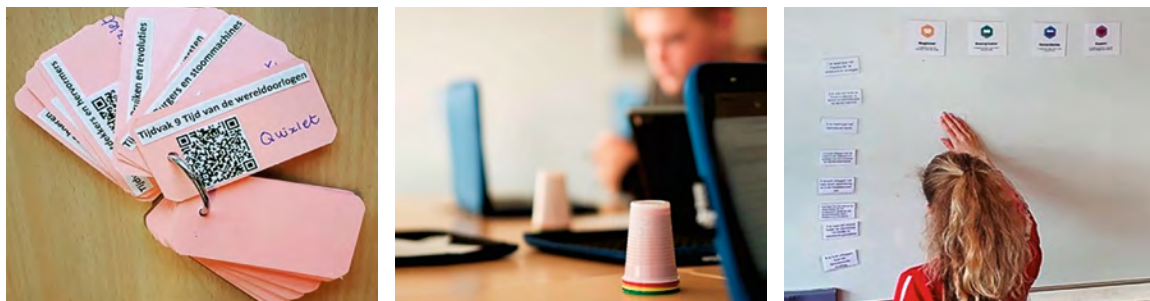
To make learning visible in the classroom, I have created a system in which students can slide their names to the point of the process where they are currently at:

***'How would you describe yourself?'***

**beginner – intermediate – advanced – expert.**



This is an idea I picked up during one of the class visits in Jyväskylä.



### Students show how they prefer to work by using colored cups

To quickly see, during my teaching, exactly who is doing what, I have continued to work with coloured cups. Students show how they prefer to work by using colored cups:

- Green = I am joining the class assignment or teacher explanation
- White cup = I am working independently
- Yellow cup = I have a question
- Red cup = I have to stop (because the explanation is too fast, I need to go to the toilet, etc.)

### students worked in groups: the groups were formed and one of them was assigned the role of 'chairman'

During the school visits I saw how the students worked in groups: the groups were formed and one of them was assigned the role of 'chairman'. This student was responsible for the work process of the whole group, and was responsible for communication with the teacher. He was also responsible for the materials. A colleague of mine has been working with this method. With cards students describe themselves after a formative assessment: *beginner*, *intermediate*, *advanced*, *expert*. Teacher can use the cards for heterogeneous groups, for example to give differentiated instruction.

We are now thinking of how to implement and further develop the goals of our new policy. One way of doing this is through 'education cafés'. Step by step we will work towards implementation; we have started by getting acquainted with the term *formative evaluation*. A game that could help with this is developed by the SLO, and it can be found online (in Dutch):

## Creativity to enrich school culture

*Joop Boomsma, the Netherlands*

Type of change: Cultural change

Main goals: Cooperation between teachers and students; Rethinking the use of space

### Welcoming students who are late

Normally I would give a warning to students who are late, but now I warmly welcome them. I tell them that I am glad they have made the effort to come to school and that they are safe. This approach has been a direct result of my experiences in Finland. During the school visits, one of the teachers told us that a positive approach gives much better results and feedback than a negative approach and punishment.

I started with setting an example by rewarding positive behaviour. For everyone: both students and for the teachers. Through this positive approach both students and teachers are more involved, take responsibility and appreciate the confidence that is placed in them.

### Working with the environment

In order to create a new curriculum for the next four years, I invited all teachers to join me during a brainstorming session. We had a dialogical and interactive discussion style, that promoted teacher participation. The main focus and question was to ask ourselves 'why are we doing the things we do?' and 'who do we want to be?'

After a few meetings, we found the solution we were looking for. By using the theory of Simon Sinek (The Golden Circle), we realized that we wanted to be a social organization where learning, development and support are important in contact with the social environment and the parents. The core of this conclusion describes the education that I experienced in Finland. We work together now with different stakeholders and parents to enrich our education. Let me give some examples:



**I tell them that I am glad they have made the effort to come to school and that they are safe**

**a dialogical and interactive discussion style, that promoted teacher participation**

- Visiting Ajax Arena. We organise excursions for the children to places where they have never been. The trips are funded through cooperation with a bank which is working together with the Youth Education Fund. Employees from the bank join the children during the activities. This year we have visited the concentration camp in Westerbork, the musical Lion King and the Ajax Football Arena. The small children have visited the zoo, where they learnt a lot about animals.
- Our own meeting place. Another project is to create a classroom

a meeting point for parents, children and teachers where they can influence each other with their educational ideas

for all the participants inside the school. They can use their own creativity to decorate the classroom according to their own wishes. It is a meeting point for parents, children and teachers where they can influence each other with their educational ideas.

used our local environment to create valuable extra-curricular experiences

At school we use our own creativity to enrich our education. Before I went to Finland we had slowly started this process, but it was just a theory. We had to change our mindset in order to organize this at school. We

have used our local environment to create valuable extra-curricular experiences. Our visit to Finland has encouraged us to inspire each other by using our own creativity.

EVERYDAY  
Creativity

## Connection with action

Serena Bruno, Italy

Type of change: Pedagogical approach

Main goals: Cooperation between students and teachers

My work was inspired by "The Great River", one of the great lessons of Maria Montessori that characterize the "Cosmic" educational project, capable of making the learning environment a journey towards intellectual exploration reinforced by a strong power of imagination.

making the learning environment a journey towards intellectual exploration



I planned the activities with three separate phases and moments. The students organized themselves into groups and randomly extracted the material I had prepared: a cardboard box, colored cards, straws, sticks and study material relating to the different systems and systems of the human body. I gave them the opportunity to build scientific boxes that contain a summary map, quizzes related to their respective topics, insights and curiosities. The box had to be decorated completely, with the main information presented on the outside of the box.

build scientific boxes that contain a summary map, quizzes related to their respective topics, insights and curiosities

- The children designed and defined the operating procedures themselves. Some groups divided the tasks by identifying internal managers and then dividing the material. In the folder delivered to them, I had included a *vademecum* that reminded them that group work always implies individual work.

- On the day of the presentation, I arranged the tables in a circular way, making them sit in groups. I gave each group a red ball of yarn and started reading Montessori's story "The great river".
- When the reading of the piece was finished, I invited the children to throw the red balls of yarn, verbalizing and expressing from time to time what they had recognized, realizing a tangle of red threads that immediately suggested the image of a great river, the circulatory system.

I then tried to carry out a development project, trying to collaborate, achieving a functional goal for everyone's learning. The laboratory activity has allowed us to give space to pupils' creativity, managing to organize

### organize and transform scientific contents into captivating objects

and transform scientific contents into captivating objects. In reflection I think that a challenge may be to be able to involve even the oldest students, connecting two different school phases. It would mean building shared learning environments, in which to plan activities that promote students' skills and knowledge in a creative way, activating and stimulating empathy, observation skills and a critical spirit.

### Involving the music teacher

Imagination, manual skills and direct experience are fundamental aspects of learning. Involving the music teacher, we listened to the song *La Moldava*, a symphonic poem from 1874 composed by Bedřich Smetana, where elements of the river are found, recognizing aspects and characteristics that enabled the activation of parallels and interdisciplinary comparisons.



I gave space to the self-evaluation, giving the children "Like" tokens which, at the end of the activity, they inserted in the various scientific boxes that they had deemed most clear and complete. We attached our work to the class wall, carefully choosing where to attach it.

## Twister toolkit!

*Guydolph Dijkstra, the Netherlands*

Type of change: Pedagogical tool

Main goals: Self-knowledge

In our mentoring program, we first have a meeting with the parents, teachers and students. We want to know how good the students are at different subjects like math, languages, history etc. and how the students react in different situations. We noticed that it was hard for them to express themselves in words. Not everybody can express themselves well in words, many are better at sharing information in a visual way.

In Finland, we found a tool that looks like a twister board. With this tool the student could point out how they feel about a subject, whether the subject is hard, easy, or something in between; but at the same time you can tell if they like it or not. The same applies with a situation, whether it is hard or easy to talk about and if they like it or not. We noticed that when we used this tool, the students could express themselves a lot better. They did not have to speak aloud, they could just point to some spots and make a game of it. They had fun with the game but at the same time they were honest about how they felt. We noticed that it was easier for them to talk more openly about their feelings when they literally pointed them out.



With this tool the student could point out how they feel about a subject

MY NOTES

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## Let's be Finnish! – Creativity fancy fair and Let school be fun!

*Alpár Ferencz-Salamon, Romania*

Type of change: Pedagogical approach

Main goals: Cooperation between students and teachers; Critical thinking

I planned to implement two educational projects through which my main objective was to demonstrate that Finnish creative ideas and educational models can be adapted in our schools as well, trying themselves out in 'out-of-the-box' situations that could improve self-confidence and self-knowledge, and encourage participants to do things differently, to cooperate with others by using approaches like phenomenon-based, experience-based learning and learning by doing. Educational projects could have a positive influence on teachers' personal and professional experiences and could develop their skills and abilities, opening their path to becoming more innovative, creative teachers.

The first project that I initiated was the *Creativity fancy fair* for children, teachers and parents. The idea came from one of the projects of a Finnish teacher. When we visited his class, he told us that he makes teas with different

by organising the *Creativity fancy fair*, we could demonstrate both for teachers and colleagues, that by creating original products and selling them to each other we could support local projects and needs

flavours with his class. They pack the teas, together they create the labels on them and they sell these to finance different class projects. Together with my colleagues we thought that by organising the *Creativity fancy fair*, we could demon-

strate both for teachers and colleagues, that by creating original products and selling them to each other we could support local projects and needs, could make children be aware of issues regarding special needs children or social or environmental problems and could give good practice to our teachers to be used when they are planning class projects.

We organised a *Creativity fancy fair* in December just before Christmas. Children together with their parents and teachers in teams made different crafts, handmade objects, traditional Christmas or other cookies, Christmas



tree decorations, simple clothing accessories, etc. At the fair they could sell/ buy the products that were made. After the fair they could donate the raised money to the Puzzle – Centre for the development of children with autism, that we have within our school. From the donations the centre could buy several tools for their activities.

The second project was to organise a whole-week activity/project in which our teachers work together, identify, adapt, plan and implement phenomenon-based, inquiry based or experience-based projects/activities with all the classes from the school. We named this week *Let school be fun!* This was inspired by our school visits in Finland where the curriculum promotes multidisciplinary projects.

a whole-week activity/project in which our teachers work together, identify, adapt, plan and implement phenomenon-based, inquiry based or experience-based projects

We organised all the teachers into teams. The primary class teachers formed teams with their colleagues from the same educational level, and the lower secondary teachers formed teams according to one condition: teachers teaching the same field of study could not be in the same team. The topic suggested for primary classes was *Soil, Air, Fire, Water*. You can read further details about this project in the text of my colleague, Mária Szidónia Ráduly.

We organised all the teachers into teams

EVERYDAY  
Creativity

## Reorganize learning and community spaces in school

*Ágnes Földváry, Hungary*

**Type of change:** Learning environment, Pedagogical change

**Main goals:** Empowering students, Rethinking the use of space

I chose a project that inspired me a lot: reorganizing and redesigning the learning environment by involving students in the planning and realization stages. My goal

reorganizing and redesigning the learning environment by involving students in the planning and realization stages

was to listen to my students' ideas and to try to design a space that is more familiar, more friendly and encouraging. What is problematic in our case is that our institution has limited financial resources. We do not have the possibility to buy new pieces of furniture, etc. In this situation, I think it is important to work and think together with the students.

When students are part of the project to reorganize the classroom, it makes their learning environment more welcoming and user-friendly for them, which is very important in the learning process and it supports the wellbeing of the learners. I decided to realize the reorganization and redesigning of the learning environment on two levels: within my French classroom and at a wider level which concerns the whole school.

As I share the French classroom with two other colleagues, we collaborated at all levels of this project. Rearranging this classroom was not hard work because it was already arranged according to my students' opinion and ideas by

use materials that suit their developmental capabilities, interests, and learning styles

using authentic materials. Concerning my classroom, the students suggested some modifications that were easily achievable: for example, to make a photo collage about our trips to France or continue to decorate the walls with

other painted French clichés like "Arc de Triomphe". We agreed to use materials that suit their developmental capabilities, interests, and learning styles.

Regarding the project for the whole school, I have just started to work on it in collaboration with the student council and teachers with a pilot project. My goal is to

create community spaces and an encouraging, welcoming and positive school ambience by engaging students. I think the school needs to make adaptations to the physical environment in order to remove barriers to participation and learning. We will never have a large, open space in which students and teachers can gather together as a whole community, even though it would be crucial. As we do not have money, we will have to work from what we have: recycled materials and unused school furniture. In the pilot project, I emphasize to the students that it could happen that we are not able to realize their ideas.

## create community spaces and an encouraging, welcoming and positive school ambience by engaging students

The first step is to answer the following questions: (1) How do students and teachers appreciate their school environment? (2) Are they happy with it or not? (3) How can students describe the ideal school environment, and the teachers the ideal teachers' room? (4) If they had the opportunity, would they participate to change it? (5) Without money, what would they change physically to make the atmosphere more pleasant and friendly? The second step is to elaborate some projects in details in small groups with representatives of the student council, and after requesting the opinion of all students and teachers, decide about the realization of one or two projects.

During the whole process of redesigning and reorganizing the learning environment in the school, we will have a lot of conversations about the project and its possible outcomes. I think that designing community spaces at school is not only about interior design but a lot more. I would like the students to experience:

- that they are able to influence their everyday surroundings
- how new ways of using the old spaces affects the behaviour of the community
- taking responsibility while they design and maintain the community space
- that working in a group is more powerful than working alone
- that communication is key to motivate passive or destructive students to take action
- that they can build something concrete and tactile through a democratic design process

MY NOTES



## Let school be fun! – Bubbling (games and experiments with soap bubbles)

*Boglárka György, Romania*

**Type of change: Pedagogical approach**

**Main goals: Learning by doing**

During our project “Let school be fun!”, we wanted to design extraordinary activities for pupils. We teachers teamed up, and put together a series of activities that included materials from different subject areas that would be mainly based on a learning by doing method. Through bubbling games and activities we wanted to involve as many subjects as possible, such as history, physics, chemistry, mathematics, geography and the arts. We designed the activities with a literature teacher, but consulted with the physics and chemistry teachers and with the technology teacher as well.

Our activities were mainly based on the learning by doing method. Students literally had to do things with their hands and they had to figure out the solutions to problems themselves. Most of the activities were in the classroom, and some outside. Students had to arrange their classroom to fit the activities, and simultaneously to be able to work as a group.

We had 5–6 activities lined up. At the beginning we teachers gave a few instructions what the students should do to achieve a certain outcome, but they had to figure out the ways. We were among them, helping them out with further instructions if needed. We used everyday household items (bowls, spoons, straws, ear picks, glue guns) and easily accessible chemicals. We also provided measuring items such as bottles.



In the first experiment, the teams had to make their own soap bubble solutions choosing from several recipes. They had to figure out how to measure without exact measuring tools. The next experiment consisted of creating an uplifting force (vinegar and soda) so that the bubbles would float on it. This proved to be the hardest, because it required the most cooperation.

The next experiment also needed a higher level of cooperation. In this case, to be able to finish on time, students had to divide the tasks properly. They had to make different geometrical shapes with the help of ear picks and glue guns. When they were finished with the geometrical shape, they put every side of it in the bubble solution and observed what happened. In our final experiment we wanted to freeze bubbles (it was in February), but because of weather conditions we were only able to freeze the bubbles with 4 groups out of the 14.



During the activities it was obvious that the pupils had fun, they played, and through that they learned new things or deepened their knowledge. After the activities we teachers discussed what the strengths and weaknesses of the activities were, where could we improve them, what we needed to do differently, etc. We also discussed the tasks with the students as well so they could tell what the most interesting parts were and what they liked or disliked. I feel that we still need to improve ourselves in cooperating with each other, in finding ways we can create bridges among our subjects. Overall it was a nice experience; the kids enjoyed being in school and enjoyed the activities.

pupils had fun, they played, and through that they learned new things or deepened their knowledge

we still need to improve ourselves in cooperating with each other, in finding ways we can create bridges among our subjects

EVERYDAY  
Creativity

MY NOTES

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## Literary cafés and fairy tales

*Susanna Maresca, Italy*

Type of change: Pedagogical approach, Learning environment,  
Cultural change

Main goals: Autonomy of students, Focus on the community building

make them feel like protagonists and be aware of their own learning

involving parents and the neighbourhood

The main purposes of the works carried out this year were to develop students' creativity, to make them feel like protagonists and be aware of their own learning. Furthermore, we wanted to broaden the field of action by involving parents and the neighbourhood, through performing a show. The spaces used are not normally used in ordinary teaching activities.



Students read several fairy tales, in order to identify the various functions. In small groups they created some cards where they have drawn a protagonist, an antagonist, a magic vehicle and they represented a specific function (removal, happy ending, overcoming an obstacle, etc.). We then mixed the cards and each group fished out four of them and invented a fairy tale with the chosen functions. Later, the students decided to merge the groups and create a

single fairy tale, combining all the elements. The works were then presented to all students through small books or posters made by them.

The literary café came out as an idea from the students, stimulated by teachers who had studied the birth of the first literary cafés in Europe. Literary

promote a critical reflection on the fundamental values of society

cafés were a place of association, where people could freely exchange ideas, learn about new literary creations and develop a critical sense. In other words, a place that could be considered very similar to school. It was therefore

decided to create a project that would include a final show, a recital comprising music, poetry, songs and dances. The aim of the project was to promote a critical reflection on the fundamental values of society and the individual

through the study of Italian and foreign classics; develop the linguistic, communicative and expressive abilities of children; increase their love of reading as a fundamental tool for their own growth.

The students chose to refer to the texts that had been studied, analysed and interpreted in Italian literature and it was decided to propose love as a theme. We selected the poems studied and the period chosen was approximately from 1200 to 1500. Students were helped in the interpretation and correct diction and in the learning of simple theatrical techniques (gestures and diction). Simultaneously with the music teacher, the students worked on medieval music, studying and choosing the songs they would play, sing and perform for the show.

Another group worked on medieval clothes, along with the art teacher. This work led to the making, in collaboration with parents, of the costumes to be used. Our school was an ancient medieval convent, so the students had an ideal venue for the presentation of the show: the cloister. They designed and made the decorations with baskets and garlands of flowers, candles and lights (the show took place in the evening). Students visited the State Archive to understand the importance of historical documents, the philological work on manuscripts, as well as interpretation and archiving. Finally, with the physical education teacher the students practised the choreographies of some medieval dances.

A group of students worked on the technical part; microphones, lights and music. Parents were invited to organise preparation of the buffet. The school opened to the outer world and new spaces were used, which made them appear even more beautiful.

worked on medieval clothes,  
along with the art teacher

choreographies of some  
medieval dances



## Small changes make a big difference

*Domonkos Németh, Hungary*

**Type of change:** Pedagogical thinking, Pedagogical approach

**Main goals:** Highlighting the role of the student

In Maroslele Primary School we were able to launch the following pedagogical changes: a teacher in Finland had told us what a strong emphasis on the whole child can accomplish in the classroom. He described how the autonomy that teachers enjoy in Finland has given him the freedom to continuously analyze, experiment with, and mold his pedagogical approach to increase the motivation and overall health of his students while he teaches mathematics and science or any other subject. His holistic approach to learning, acknowledgement of the needs of the child to move and be active has helped him become a risk-taking innovative teacher whose students are showing dramatic results in both attitude and achievement.

One of the changes that I have made is that kids are much more at the center of the school than before

Children's opinions, decisions and choices must be taken seriously. I ask the teachers to support children's plans and dreams

One of the changes that I have made is that kids are much more at the center of the school than before. As the principal of the school, I also encourage my teachers to follow suit. As a leader, I have a great responsibility to make children feel good at school. The distance between children and teachers has decreased. Many people can talk to teachers with confidence. Children's opinions, decisions and choices must be taken seriously. I ask the teachers to support children's plans and dreams.

We also reduced the speed of work. I personally skip many of the prescribed materials if I do not find them important. We also talk about topics children would like. I also learned in Finland that it is sometimes worth asking children what they know, what they want to know, and at the end of the topic, what they have learnt. I have taught several historical themes this year. An important change for us is highlighting English lan-

guage in everyday situations. Children in Hungary only meet foreign languages in the English language classes. Our goal is to introduce English in every possible situation. Anyone, any teacher, might be able to include English in their lessons and other aspects of everyday life in school.

**I personally skip many of the prescribed materials if I do not find them important**

EVERYDAY  
Creativity

## Let school be fun! – Little bears' adventure

*Edit Páll, Romania*

Type of change: Pedagogical approach, Learning environment

Main goals: Cooperation between teachers and parents, Students' curiosity and creativity

### combined different fields of study (Science, Arts, Maths, Social Studies) in the project on little bears' adventure

I believe all children are unique and have special qualities. Our responsibility is to help students discover their own abilities. Based on our experience in Finland, we have combined different fields of study (Science, Arts, Maths, Social Studies) in the project on little bears' adventure.

### co-teaching with my colleagues

During this 5-day project I had the opportunity to try co-teaching with my colleagues. We invited our school principal to work with us on the 3<sup>rd</sup> day and the Music Teacher on the 5<sup>th</sup> day. It was also interesting to make plans for the 1<sup>st</sup> day together with the other primary school teachers, to recall memories of our childhood games and try playing these games in the teachers' room. Based on the fact that we had seen a lot of good examples of learners' family involvement in Finland, we decided to invite parents for the 2<sup>nd</sup> day. They were actively involved in the workshops. It was a pleasure to work together, teach and learn from each other, share information, ideas, resources and solve problems together.



We combined subjects and enhanced our students' curiosity through learning by doing. That way we have encouraged their active participation. There were situations of exploratory learning based on their interests. We tried to create a more motivational and creative educational environment, so we used different learning spaces such as the classroom, the schoolyard, the ceremonial room and the hallway.

We enhanced our learners' engagement and motivation by combining several different hands-on and online tools, technologies, devices and materials. We used worksheets, video and internet resources, smart board, experience pedagogy tools, photos, coloured papers, cards, cartons, pencils, glue, forks, knives, chocolate, dice, board games, books, chairs, etc. The activities happened through verbal and physical interaction with other people and with the objects, and it was a multisensory experience.

Following the examples we saw in Finland, we informed parents about the activities after each day's program on the online platform of our class. We sent them photos, videos and short descriptions. After the project we organized a party for them at their request using some games played with their children during the project. We have also made plans for a similar summer camp. It has been a fun and exciting experience, and a good example of involving learners' families in school activities.

**informed parents about the activities after each day's program on the online platform of our class**

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
"Old bear adventure"	"Adventure in pairs"	"Skillful bears"	"Chit chat adventure"	"Puzzle adventure"
Our childhood games	Indoor games	Adventure pedagogy games	Communication games	Puzzle Evaluation

## Let school be fun! – The four elements

*Mária Szidónia Ráduly, Romania*

Type of change: Pedagogical approach

Main goals: Learning by doing, Experiential learning

### combined the classes and the teachers

As we saw in Finland, the first grade classes were mixed in groups and they learned from different teachers. We used this idea and combined the classes and the teachers. It was relevant for the school community because students had the chance to meet other teachers from the school and they could learn from them and also because we had never had an experience like this before.

### We worked together for the week, and had separate activities with the different classes

In this project, I collaborated with my colleagues. We worked together for the week, and had separate activities with the different classes. We used methods and strategies such as learning by doing and exploratory learning, and we managed the learning space. As supplies we used things like glasses, balls, water and balloons. We had separate days for each element (water, fire, air, soil). On each day we had experiments and games that were useful for learning by doing, to collaborate with each other, to help and encourage each other. I will describe just two days from the week.

### WATER DAY

In the morning, we discussed the importance of water. We had 4 groups with one teacher in each. In the first group with teacher from class A, students had to observe the way water changes. They had to put water into several glasses and with the water they put different objects or substances in the glass, like: a rock, a coin, salt, sugar, a bean, etc. After that they had to put sea-salted water in a glass and after that they put a string in the water. They had to draw each day for a week, what happens to the string. In the group with teacher from class C, students made plasticine from water, salt and flour. They made different objects from plasticine, and students could choose what they wanted to make.

In the two other groups, students painted with painted bubbles or they made experiments with ink in a glass. The group observed what happened in the water if someone swirled it.

## AIR DAY

This day we had 3 groups. In group 1, students made a pinwheel from paper and in group 2, they made a paper dragon. In group 3, they had a competition: we divided the group into 2 groups for the competition. We put water in three glasses and a pingpong ball. They needed to blow the ball from the first glass to the last. If somebody from a group could do this successfully they got points. The group with the most points won the competition. We also had an air experiment with balloons. We put a pin and we burst the balloon. We put many pins together and tried to burst them, but we found out that then the balloon does not burst.

At the end of each day we discussed what the most interesting elements were for the students. They got so excited about learning by doing! Parents told us that they went home and did the same experiments just to show their parents or their brothers or sisters. I think we developed their motivation. We teachers need to be more flexible, we have to put children's needs to the centre.

they went home and did the same experiments just to show their parents or their brothers or sisters

we have to put children's needs to the centre

EVERYDAY  
Creativity

## Creative teacher for creative students

*Alessandra Schippa, Italy*

Type of change: Pedagogical approach, Cultural change

Main goals: Autonomy of students, Learning by doing, Teacher as facilitator

involve every student respecting their different pace of learning and their different learning styles



build their own solutions to real-life problems

solutions to real-life problems: money, prices and furnishings, recipes and cooking, travel arrangements, restaurant meals, shopping trips and the practical making of carnival masks.

practical activities with everyday materials

Learning to count, identify numbers, and understand quantity are a few of the important concepts covered. A strong number sense is vital for future understanding of more complex math topics. According to this, some of my colleagues and I planned and organised manipulative and practical activities with everyday materials such as beads, straws, buttons, pasta, corks and thimbles to promote number sense and to achieve understanding and formalization of mathematical concepts: in particular, place value and the base ten number system.

My pedagogical challenge is to involve every student respecting their different pace of learning and their different learning styles, promoting their own autonomy day by day, leaving them free to choose and to learn from mistakes through fun. In this way, it will be possible to develop abilities and skills, such as problem-solving skills, flexible and critical thinking, self-reliance and awareness.

Sharing the idea of Alessandra King that mathematics is all around us, some colleagues and I designed, planned and led activities that were going to fit into everyday life. Students worked in groups, comparing and negotiating ideas, to build their own



Through playful activities, students make their first discoveries, their first hypotheses and their first reconstructions. For this reason in my class students play card games, roll two or three dice to calculate additions, play board games and bowling to understand and practice addition and subtraction.

In some classes and in an interdisciplinary perspective, interesting paths have been activated in the CLIL (Content and Language Integrated Learning) methodology. Science, Art and History topics have been presented and studied in English. The activities were organized by teachers of English and other subjects according to structured planning. Students always work in groups and teachers are just facilitators of their learning.

**Science, Art and History topics have been presented and studied in English**

Being aware of the importance of physical activity and to promote social skills, my first grade class has started a project called "circus school". The use of circus techniques is meaningful and deeply involving for students. In this way, they can do things together, they can experiment with the courage to try and fail, they can develop social skills and improve their concentration. During the different activities students are able to discover their own creativity and improve body perception (developing control, balance and coordination).

**The use of circus techniques is meaningful and deeply involving for students**

EVERYDAY  
Creativity

## Online classroom to support evaluation

*János Schulcz, Hungary*

Type of change: Learning environment, Pedagogical tools, Pedagogical approach

Main goals: Improving students' critical thinking; Rethinking of the use of space

From my own point of view, I have always been a supporter of reform pedagogy. I have made the following changes in my pedagogy and incorporated it into class teaching after my experiences in Finland: (1) emphasizing competences; (2) subject concentration; (3) less theoretical material and rather focus on useful knowledge and independent experience; (4) online community space for classes, and (5) robotics.

encourage my students not to work from just one source while creating a project

In my classes, I focus on tasks and projects that strengthen problem solving, critical thinking and creativity in students. I try to divide the time so that all students have enough time to prepare the project. I also consider source criticism important. I encourage my students not to work from just one source while creating a project. Every time I give students the opportunity to present their projects to the class, so that they can work on improving their communication skills. At first the children did not

I give students the opportunity to present their projects to the class, so that they can work on improving their communication skills

dare to give a lecture, but after 1–2 months this has changed and now they are happy to present their work to the class community.

a complex presentation for their peers on planning a family holiday

In the 6th grade, they have to prepare a complex presentation for their peers on planning a family holiday. The presentation is divided into three major parts. In the first part, we define and present the immediate environment of the resort, in geographical and biological terms. We plan the route with Google Maps and compare options to decide which to use. The second main part of the project is finding accommodation. It is important here that every student looks for suitable accommodation for their

own family. When they have the right accommodation, they have to briefly present the location with pictures, information, prices, services, menu, etc. The next section is about the nearby sights and attractions. It can be a famous building, a museum or a nearby natural landscape. The process of searching and processing information is important. Here, communication is also important: they present their plans to their classmates and to their families at home as well. I hope to receive feedback that a family has used a child-generated project when planning a vacation.

I have long wanted to introduce the use of community learning spaces to help my students. Because social tools are used daily by all my students, I was able to launch an online classroom in Google Classroom. The processed material, the tasks, the project work, but also the process of monitoring and evaluation are published there for my students. They can solve common tasks there and ask for help from each other and from me. Another great benefit of Google Classroom is evaluation. Quiz tasks are easy to create, and they are also visually attractive because I can place pictures, videos, links, etc. in the quiz. The process of control and evaluation takes place in an environment that makes them comfortable because they can even use their own mobile phones during the quiz.

Robotics is becoming increasingly important in the teaching process. Our school has programmable BeeBot and Makeblock Ultimate 2.0 Robot Kit. I have decided that I would always bring out the robots and teach the algorithmization process with the help of robots instead of the traditional, boring materials.



### online classroom

### teach the algorithmization process with the help of robots

## Everyday creativity the day after *Anton Span, the Netherlands*

Type of change: Pedagogical approach, Pedagogical tool

Main goals: Student autonomy, Differentiation

### It is more the way of teaching

There are things I have already done in the classroom and some things that are still on the to-do list. Some things I have done in the classroom were not recorded because they are not physical changes. It is more the way of teaching. Luckily other things were easy to collect through pictures. I will start by explaining the physical changes in the classroom.

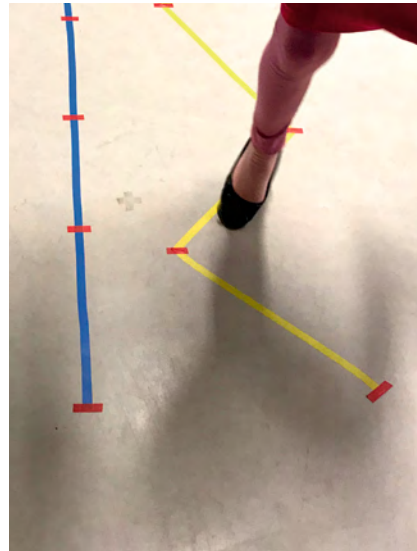
*Collaborative book created with digital storytelling technology tools in Leeuwarden*



*Bookcreator* is the perfect app to make a subject more interesting. Normally we all work on the same subject, but this time students could choose their own subject. They were working in pairs on their books. I gave them two weeks to finish the book. I noticed that the students were really motivated. When they have finished their work, they immediately wanted to start with their project on *Bookcreator*. At the end of the two weeks, they presented their work to each other. Normally they stand in front of the classroom, but this time we used a setup involving group discussion. I saw this solution in a classroom in Finland. This way it is also a lot less stressful for students to present their product to other students.

### Bookcreator is the perfect app to make a subject more interesting

### setup involving group discussion



*Jumping line in Leeuwarden*

*Jumping line in Jyväskylä*

Multiplication is very hard for my students. At the moment they do not have the skills to master it. In a classroom I saw lines on the floor and the students were jumping on them. It helps them memorizing multiplication tables. The students in my group often practice it and for them it is not only hard but also fun to do. When the results improve, other groups will also start to do the same. It is the small beginning of a little work-out. In the future, I hope that all students will have the opportunity to do some exercise in the school or classroom.

**It helps them memorizing multiplication tables**

**opportunity to do some exercise in the school or classroom**

This year we decided to prepare grade eight students differently for secondary education. We purchased books on different levels. The students completed the assignments and we discussed the answers with each other. Since all students were not at the same level, they started with a level that felt good for them. So it was their own responsibility to estimate their abilities. After they finished their tests, we decided together whether they wanted to try a more difficult test or an easier one. I gave them more autonomy and they really liked that.

**The students completed the assignments and we discussed the answers with each other**

the ambience within the group is perhaps the most important factor

invest more time in the wellbeing of the group

In every subject they made a list of things they wanted to learn

During our time in Finland, it became really clear to me that the ambience within the group is perhaps the most important factor in the hierarchy of needs. So after the course in Finland, I did a lot of group discussion about almost anything. If there is a problem in the group, we directly stop the lesson and talk to each other. I try not to speak a lot but ask questions.

With a new group of students, I am going to try to invest more time in the wellbeing of the group so that they will feel more safe in my classroom.

In Finland, students have a lot of autonomy. I have tried to give my students the same. I did this by letting the students tell me what they wanted to learn. In every subject they made a list of things they wanted to learn. Every time they finish their work they can choose what they want to learn next. For some students this is a perfect solution, but other students cannot cope with such freedom. They cannot decide what they want to learn and would rather do other exercises.

MY NOTES

EVERYDAY  
Creativity

## Difficulties in handwriting

*Zita Andrea Szalai, Hungary*

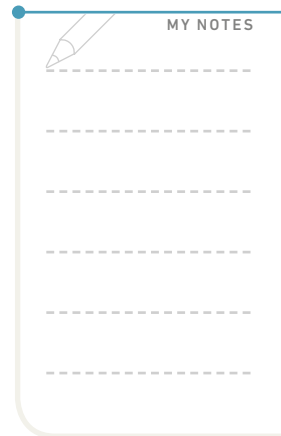
**Type of change: Pedagogical thinking**

**Main goals: Differentiation**

People with learning disabilities like dyslexia do not do enough writing to learn from their own experience with writing. When these people do write with pen and paper, it is so difficult for them that they do it awkwardly, if at all, and they do not enjoy it. So they avoid it and of course do not improve because of their lack of practice. Nowadays a lot of people have difficulties in handwriting and the number is continuously increasing. In my school in every class there are 2 or 3 students who have difficulty with writing.

When I was in Finland, I saw a very good method to help these students, so when I got home I asked one of my students to help and take part in an experiment. Before this, he wrote with a pen or a pencil and used his exercise books. He wrote his tests along with everybody else, but they were so unreadable that sometimes I had to ask him to make an oral presentation. The issue of his handwriting has been something that has been monitored since his first year of primary school, and every method has been given to him in order to try and improve his handwriting, e.g. triangular pencils, grippers, a writing board (to write at an angle), lessons in cursive script and handwriting improvement, etc. This year I decided that it would be better for him to type out the test answers and everything he hears during the lessons. He has been using a computer in lessons since December.

If he could have got enough practice writing with a pen and paper, his writing could have improved. The keyboard has eliminated issues with his dysgraphia: he can make changes in his writing, and easily proofread his writing on screen. He has had a very good experience in typing. He enjoys typing his tests and everything, and it means that he does not get as fatigued mentally and physically from forcing himself to try and write





The keyboard has eliminated issues with his dysgraphia: he can make changes in his writing, and easily proofread his writing on screen

neatly, which means that he can have overall improved answers and it helps him to study better. Before he could not read out his own handwriting and he had problems in studying. Since then he has received better marks and doing his homework is easier too because he can take the laptop home.

EVERYDAY  
Creativity

## Let school be fun! – The Da Vinci bridge

*Enikő Tankó, Romania*

Type of change: Pedagogical approach

Main goals: Learning by doing, Cooperation between teachers

In our project, we have tried to come up with activities which allow students to move around, to experience things, to try things out and learn from their experiences. Consequently, one of the topics proposed was to build a bridge out of twelve pencils without using any glue or other adhesive material. The activity was designed by four teachers coming from different subject areas: history, technology, Hungarian and English. In each class the activity was facilitated by two of the teachers and every class in the lower secondary school had access to the activity. During the different stages of the activity, students had to work together in a team of four.

The activity was designed by four teachers coming from different subject areas: history, technology, Hungarian and English

Two teachers facilitating the activity interacted with students giving them the aim and providing information about the most famous discoveries of Leonardo da Vinci. For the activities, each team got 12 pencils, 36 rubber bands and a picture of three steps of building a bridge out of them. Each team had a mobile phone to document their team's work and they could take notes of the proper steps if they wished to.



### Detailed description of the activity:

- **Step 1:** When entering a classroom, teachers asked students to form groups of four, then gave them the roles to perform in each group and allowed time for students to assign these roles.
- **Step 2:** Students watched a 5-minute PPT presentation about Da Vinci's greatest discoveries, as well as some short videos presenting some of the modern versions of these discoveries.

- **Step 3:** The facilitating teachers explained the task and provided the materials needed for building the bridge (pencils and rubber bands), as well as some pictures with three steps of building the bridge.
- **Step 4:** Students had 40 minutes to experiment with the bridge and try building it.
- **Step 5:** For those who did not manage to build the bridge, there was a short video with the algorithm. Every time a bridge was finished, students performed the stability test with the bottle of water. If the bridge did not hold the bottle, they had to rebuild it.
- **Step 6:** Students who managed to build their bridge relatively quickly, worked on their skills, shortening the amount of time allocated for building the bridge. Some of them even challenged each other for a competition.
- **Step 7:** Teachers and students reflected on their activity together: what went smoothly, what some of the mistakes were, what helped them, what their thoughts were at the beginning and the end of the activity and what brought about the changes.

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## Building bridges between students and teachers

*Francesca Ugolini, Italy*

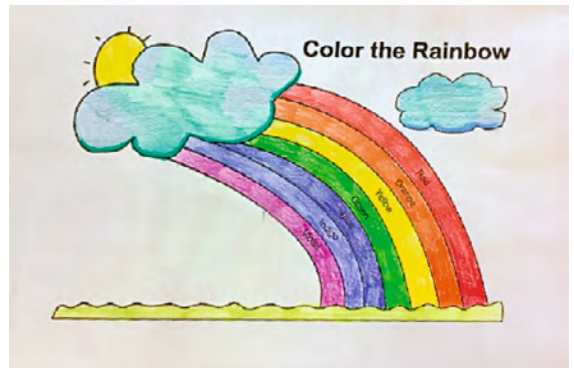
**Type of change:** Learning environment, Pedagogical approach

**Main goals:** Rethinking the use of space, Cooperation between teachers

My challenge is to give my students the opportunity to feel comfortable and active during the school day. In my opinion, talking directly to students, asking about their needs and trying to be careful to understand their feelings provide useful information and an interesting starting point.

I have started with very simple ideas. First of all, in order to create a motivational context, I tried to open the borders of the classroom and expose students to other corners of the building (a hall, a garden, etc.). I planned a simple activity of practicing interrogative form with first-year-class students. Together, we chose a suitable place, comfortable positions and then we played the game. The results encouraged me to continue in this direction. In another class where I wanted to practice irregular verbs, I decided to bring the students into the debate room, because of its particular shape. I divided them into two teams and each team had to mime the verb and tell all the irregular forms.

**open the borders of the classroom and expose students to other corners of the building (a hall, a garden, etc.).**



When our pupils go to secondary school to continue their studies, their teachers and their school building get changed. It can be stressful for them to think about this situation, in which everything is new. A group of teachers suggested that secondary school teachers could organize some laboratories for primary school pupils. Each teacher prepared a lab, with different topics, but with the common aim to involve pupils and enhance transition.

I planned my lab trying to involve my students, an art teacher, primary school teachers and pupils. I prepared a laboratory based on English and

## laboratory based on English and Art

## teams of primary and secondary school teachers to experiment with new approaches and different methods

and even on teachers. We have organized teams of primary and secondary school teachers to experiment with new approaches and different methods, sharing common attitudes.

## after our visits to schools in Finland we decided to create a multifunctional lab, especially geared to science experiments

## construct innovative learning environments

Concerning future actions, after our visits to schools in Finland we decided to create a multifunctional lab, especially geared to science experiments, but also useful and suitable for other activities. We collaborated to look for financial resources, spaces to reorganize, materials and tools to buy. The opportunity came with a National Operative Programme (PON) to construct innovative learning environments, enrich innovative technological resources and to integrate ICT into didactics. We are going to buy a huge interactive screen, modular desks, science kits and tools for scientific experiments. We will start with experiments in developing digital storytelling.

Art. I asked my students and art teacher to draw a poster with primary, secondary and tertiary colours and another one with warm and cool colours. In the laboratory I showed pupils the posters and they had to look for the colour and the corresponding group. Later I gave them a paper with a rainbow in which they had to colour in using the instruction. Following that, we discussed with the teachers about the positive effects the labs had on pupils

and even on teachers. We have organized teams of primary and secondary school teachers to experiment with new approaches and different methods, sharing common attitudes.

## Use of social media platform as a learning portfolio

*Attila István Vári, Hungary*

**Type of change: Pedagogical tool**

**Main goals: Self-reflection, Self-knowledge**

The challenge I identified regarding my everyday work is the assessment of students. Our educational system requires standard assessments, regular summative assessments and does not focus on individual formative assessment.

My pedagogical approach is that students must identify their abilities, areas of strength and also areas for development. I work in vocational education where competences and skills are essential and the focus is on the question: are the students able to do something or not? It is evident that there are already significant differences between students at the start of the course and that is why they need individual learning pathways and assessments that evaluate their progress in a transparent way.

Based on the Everyday Creativity course, I decided to start using individual portfolio assessments with my students. The class I teach is agricultural mechanics where students have various possibilities to use their skills, repair things, find solutions, design and identify problems. They usually have a personal connection to agriculture and their family or friends work in the sector; that means they can be involved in practical activities. I also need to see their daily activities on their practical placement to maintain the educational process.

using individual portfolio assessments with my students

I asked them to document their activities with pictures and social media posts, blogs, or just to share the images with brief information about the

particular operation. The most common platforms for them are Instagram and Facebook. They can use hashtags to indicate the content, and they can make a collection of their achievements. As a group activity, they can present the actual challenges and problems as they start a community of practice

document their activities with pictures and social media posts

present and discuss the content of the platform individually or in a team

through it. As a teacher, I do not enter their private platform if they do not want it. They are given opportunities to present and discuss the content of the platform individually or in a team.

The recording of their activity is not obligatory, but I feel they like to do it and they feel safe to share even their failures. I consider this method as a portfolio of the students' activities, their progress and also their level of motivation and attitude. A further development could be to find a way to embed this student portfolio into the institutional assessment system.

MY NOTES

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## Closing words

Working on this Handbook, reading teachers' reflections, reports and portfolios, we have constantly had the impression that this blended course had reached its goals or even achieved more than planned. Professionals from five European countries and different levels of education discussed and tried to better understand learning and teaching. An intensive and equal dialogue was born in which several viewpoints and examples met to create new ideas, new solutions and even more questions. As the follow-up reports show, teacher participants have gone through a complex process of professional development, and as the testimonials at the beginning of this Handbook demonstrate, all partner organizations have benefited from this collaboration in various ways.

We have considered the heterogeneity of the community and the diversity of learning paths as assets that have showed how interaction (with others and self) and meeting the unknown and unexpected (in a foreign country or in the work of close colleagues) boost creative thinking. We hope that this Handbook and the online study materials will initiate further discussion and reflections and will help form new learning communities to have a greater impact on the development of education in Europe and beyond.

*Jyväskylä, 28 June 2019*

*Tamás Péter Szabó  
Kristóf Fenyvesi  
Gomathy Soundararaj  
Tea Kangasvieri*

*Editors of this Handbook*



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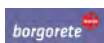
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The background is a solid blue color with a repeating pattern of white line-art icons. These icons include various school supplies like pencils, erasers, and notebooks, as well as art supplies like paint palettes and brushes. There are also symbols of nature like apples and leaves, and other items like a school bus, a sun, and a speech bubble.

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BOOSTING  
CREATIVE RESOURCES  
WITH FINNISH MODELS OF  
EDUCATION