What do you want to learn? "Dunno". "You decide". "You are the teacher". Something is going wrong if youngsters are answering in this way. What I learned in life is that young children for a rather long time, know what they want to learn. And then there is an age (different for everyone?) when other things become more important. Other things? Other things outside school? What can they be if you learn about life in school? And I also know that some things need to be learned in order to learn life skills.

There must be a basis and this basis needs to be extended over the years. However, I think that we are losing youngsters if they are not interested in what I teach them. Or... the content is interesting but the way in which I try to what I teach them. Or... the content is boring. Who knows!

But suppose I propose that they have the opportunity to make their own curriculum, to design their own education. What would happen? Do we teachers have the time, the space to ask youngsters for that? How restricted are we by the (state) curriculum? I have heard about several countries where there is a lot of freedom for teachers to develop their own curriculum (whether or not with their learners).

I was wondering if there is a country where teachers have the freedom to develop over the years a progressively wider curriculum (as seen from the point of skills, competences and knowledge) based on the wishes of the learners. Maybe that will be a growth-curriculum, a personal learning curriculum. I fear that that will absolutely become a problem because of all the administration that will follow such a personal curriculum. All the accountability. The struggle between an efficient education system and the wishes of the learning children are contradictory. But are they really? In Western Europe, we have found - in each country in a more or less different way - a kind of balance (?) Yet, we still have to ask ourselves - year after year - is there enough (mental) space and time for individual, self-selected wishes to make a (private, individual) curriculum as a child/youngster?

Gerard de Kruif
Editor
MOOCs (Massive Open Online Courses) have been commended for promoting a revolution in e-Learning, digital learning and the overall educational system in digitally civilized countries. Pedagogical scientists have predicted that MOOCs have the potential to close the gap between educationally experienced, privileged social classes and those social classes who are not very involved in educational settings, especially in digital learning, because MOOCs in general are free and digitally available.

With regard to the publicity about MOOCs after 2011 (release of the first MOOC created by Sebastian Thrun from the University of Stanford, who later founded the MOOC platform ‘Udacity’), MOOC followers and scientists have become more sceptical about the MOOC trend. Most of the MOOCs that have been established beyond those of experienced providers, could not reach a high number of learners and are far from being “massive”.

Typical of a MOOC is that the number of learners who start a course is always much higher than those who finish. The reasons for this can be found in misunderstood expectations of the learners about the learning content, the level of difficulty of the content (too easy or too difficult) and also the interest of learners in only a few of the contents of a MOOC.

The established MOOC providers have also departed from the path of providing solely free courses and learners have to pay a fee for some courses to get a certificate.

Based on the research of a Master Thesis of Thomas Sommerer at the University of Graz about “Digital Learning. Chances, Trends and Challenges” (Academic Advisor Gerhild Bachmann), MOOC learners have been interviewed about their learning experience and why they have completed or not completed a course. Most of the learners interviewed have mentioned the importance of time management. They have seen a MOOC as a course that can easily be done alongside their daily routines. Whilst taking part as a learner in a MOOC, they have realized that learning consumes a lot of time and that it has been very difficult to co-ordinate the MOOC learning sched-
ule with their job and family schedule. It was difficult for those interviewed to keep track of the communication chronology within the courses, especially in MOOCs with a large number of learners who had a lot of communication within the platform.

Finding the time to work with the contents of the MOOC and to fulfill all the tasks of the week was not too easy for most of the interviewed persons, mostly because of their time schedule.

“If you’re the type, who wants to read everything and be fully involved, then this (MOOC) is very difficult.” (Example 1, Interviewed MOOC learner)

The learners interviewed have also mentioned that it took them some time to get familiar with the MOOC learning structure, how the concept works and to find all the necessary tools they need to learn in the MOOC. This point leads to the design of MOOCs and the contents of a MOOC, both fundamentally important when it comes to considering whether learners feel comfortable with the learning situation or if they feel overwhelmed.

“At the beginning (of the MOOC) it took me a lot of time to learn where everything is and (...) that took a lot of time” (Example 3, Interviewed MOOC learner)

“There is a huge difference in the design and the quality of MOOCs out there”. (Example 4, Interviewed MOOC learner)

The learners have also mentioned, that they liked the idea of the MOOC concept in general, but they think MOOCs only reach people who are already interested in learning, self-directed learning and further personal education. They don’t think that MOOCs fit people who have little learning experience or have difficulties with self-directed learning.

“If you go out on the streets and ask people (about MOOCs), most of them will say they have never heard of them. (...) It is like this (...) people who are not interested, will not, no matter how cool the learning example is, become interested (in a MOOC)” (Example 5, Interviewed MOOC learner)

The results of the interviews have shown that MOOCs are most popular with people who are already interested in self-directed learning. The rigor of a strict MOOC timetable makes it difficult for interested learners to fulfill all necessary tasks and finish a course successfully. But if MOOC creators are able to resolve those problems, there might be still a bright future for MOOC learning platforms ahead, especially in the field of teacher education and the professionalization of teachers.

**Thomas Sommerer**
Scientific researcher at the FH Joanneum University of Applied Science, Graz. thomas.sommerer@fh-joanneum.at

**Gerhild Bachmann**
Assistant Professor at the University of Graz gerhild.bachmann@uni-graz.at

The next Learning Teacher Network International Conference will be held in Dubrovnik, Croatia in April 2019. Make sure to follow our new website (http://learningteachernetwork.org/) and our Facebook page (https://www.facebook.com/learningteachernetwork/) for more information!
Food Hygiene for Children with Learning Difficulties

During the last decade, more and more Erasmus programs are being implemented in Greek schools, although not enough programs engaging children with learning difficulties and/or special needs. Through Erasmus programs, students, teachers and their communities have the opportunity to boost their skills, enhance their knowledge and modernize education. In particular, an Erasmus+ project on Health Education (EduForHealth)¹ has been implemented in integrated primary schools in Western Greece, where children with special needs and/or learning difficulties were able to enhance their knowledge on food hygiene. The general objective of the project was to restore the place of Food Science Education and related subjects in the culture of the young people, in order for their personal development and wellbeing.

Active learning methods have been used, such as role-play, working in small groups, drawings, also digital storytelling and ICT, in order to actively engage children in the learning process and build healthier attitudes towards food hygiene.

The role of the health psychologist in school communities is primarily based on the prevention and promotion of health, either mental or physical. On that basis, different activities lasting approximately one hour each have been organized and implemented in primary schools and to children aged from 7 to 12 years old. Firstly, a conversation has been made with students regarding food hygiene and students’ knowledge in personal and food hygiene. Taking into account that students of those departments had learning difficulties and/or disabilities, their contact with the material (acoustic-visual and tactile) was given gradually and in a manner similar to the potential of each student, with constant feedback and explanation. In that process, everyday examples have been used such as asking questions from their everyday life and school routine (“How clean is your hand if you touched your shirt right now?”). Then a digital story was showed to them regarding food hygiene and health threats, where students could pose questions. At the end of the story, students were asked under what circumstances they should wash their hands and they have been showed how to do that directly and with the use of video. The use of similar digital stories helped students to better understand what food hygiene is and how it is related to personal hygiene (e.g. clean hands). Moreover, a specially designed worksheet for this project had been distributed so students could fill out, how clean were their hands, when and under what circumstances they should wash their hands and how to maintain a series of daily food products safely. Also, an image of an open fridge and different food products was shown to them to put food products in the right place inside the fridge so that they could be consumed safely. In the end of the worksheet an image had been showed to students and they had been asked to find the mistakes regarding noncompliance with the rules of food hygiene. Based on the videos and the worksheet given to them, students were asked to construct a conceptual map of health and hygiene (especially what we mean when we talk about personal hygiene), a star busting template on the rules of food hygiene, a table of food health rules that included simple and easy rules on food hygiene that children could apply to their daily lives and a table on the clean hands rule. The aim of this activity was to make students aware and apply in daily conditions the rules of food and personal hygiene related to the consumption of food.

Finally, food materials were distributed to students to make snacks. In that way children were asked to apply all the basic food hygiene rules that had been taught in an everyday life activity.

¹ The scientific director of the program in Greece was Mrs. Kordaki Maria, Associate Professor of Educational Technology, Director of the Telematics’ Applications Lab, Dept. of Cultural Technology and Communication, University of the Aegean.

Nikolaos Manesis
nmanesis@otenet.gr

Angelopoulou Paraskevi
evi153@hotmail.com
Teaching in a secondary school in a disadvantaged area of Southern Europe, we face many challenges daily. Our biggest challenge - and therefore what I regard as our primary responsibility - is nurturing the self-esteem and self-image of our students. In May 2017 our school, IES Guadalquivir, was announced as a winner of one of the inaugural “Premios Vida Sana” [Healthy Living Awards] awarded by Fundación Caser. The prize itself is certainly wonderful – the €4,000 has allowed us to reinvest in the school and celebrate with the students by taking them on school trips. But the real reward for the students and teachers of IES Guadalquivir was the process.

The application for the award was arduous. In September 2016, ten teachers set out the project: to improve our pupils’ lives by teaching them healthy habits. Students undertook a survey which we used to set out our priorities. We also involved their families and other organizations by inviting them to different activities, such as parents’ workshops. The process required a number of collaborations across the entire staff at all stages of the process. The essential element of the entire process was making it our mission to promote the involvement of all students in the school. We are a secondary school that teaches 12 to 18 year olds and throughout the project over 100 pupils participated in total. The majority of our students come from families that experience social exclusion because of their social class and/or ethnicity. Consequently, there is a lack of education, high unemployment, and many members of these families are absent in the everyday lives of their children. Furthermore, we opened the main events, particularly the final cooking competition, to pupils from four primary schools in the area. This made it a celebration of the community and promoted the ethos of openness that the school wishes to demonstrate to families who might consider sending their children here in the years to come. The project, therefore was a huge commitment, but the key was keeping the students at the centre of each stage of the development of the project and the execution of our plans.

And we did this with a range of student centred activities that promoted the theme of “Healthy Living.” The theme worked on two interconnected levels: first, we aimed to encourage pupils to take greater care of their physical health in terms of general health, dental health, nutrition, and being active; second, we aimed to educate pupils on the need to nurture their self-esteem and self-worth. Activities such as orienteering, dance workshops, and the marquee event of a live cookery competition promoted such ideas with group tasks and day events. We continued our campaign by using a mobile application called Kahoot to set the pupils questions and quizzes on healthy living that reinforced what they had learned.

The students were not the only ones who learned from the experience. What we learned as teachers was that engaging pupils in topics that are truly relevant to their lives enhanced their motivation. Action creates motivation which creates action. We also learned that making them aware of what they were learning and letting them guide the process proved to be very effective and rewarding. Also, the opportunity for them to work collaboratively with those involved in the project was essential in creating a renewed sense of belonging and pride for their role within the school community.

The process of planning such a project and winning this award has motivated both the staff and the students to reach further. We are currently planning collaborations with schools across Europe in order to submit a strong application for an Erasmus+ Programme that aims to promote diversity and equality among young people throughout the continent based upon international student mobility.

At the end of each lesson I like to take a moment to reflect and ask my students, “What have you learned today?” What we have learned from this experience of daring to dream about applying for - never mind winning - the Premio Vida Sana award is that our students now recognise that they are part of something beyond the scope of what they imagined, something that extends beyond the boundaries of their communities and imposed ideas of their social class. These young people are now beginning to see themselves as active agents in the promotion of the importance of social welfare and the progression of social inclusion.
Digital media has had a significant impact on how we consume information on current events. This is especially true for young people, who to a large extent find and spread news online. The phenomenon presents a democratic opportunity for active citizens, but also a challenge since this digital flood of information is littered with communication debris such as rumours, myths and lies.

Current research demonstrates that people, regardless of age or educational level, may find it hard to navigate biased information online (Flynn et al. 2016; Wineburg & McGrew 2016). However, research also indicates that guidance from scientific principles for news evaluation may empower them to navigate in more constructive ways (Wineburg & McGrew 2017). Especially three factors have been found to support digital literacy skills: awareness of source bias, assessment of the use of evidence, and corroborating information by checking alternate sources (Wineburg et al 2016).

The scale and impact of this societal challenge of fake and biased news is unknown. We know that disinformation (often labelled Fake News) and biased news are spread through digital media used by young people. But to get a better grasp of the magnitude of the challenge, the actual news feeds of adolescents – and their perceived credibility – need to be explored scientifically. Only then will we have a solid base upon which to build teaching initiatives and materials to guide young citizens on how to navigate their digital news.

This is the idea behind the Swedish citizen science project “the News Evaluator”, where the credibility of teenagers’ newsfeeds is currently being explored. The aim is to investigate how, and where, more and less trustworthy information is spread among young people. 12,000 pupils aged 13-19 years, have signed up to take part in the study, guided by their teachers and a prototype of a digital tool supporting source criticism (image 1). The tool is based upon the main principles that research has shown to be fundamental to digital source criticism, and has been designed to guide the user through the evaluation process.

During two weeks in September 2017, almost 6000 pupils used the tool to evaluate news in their own newsfeeds in groups of three, and to submit their evaluations to a database. Through a feature in the tool, the pupils could then explore their own questions in a graphics interface connected to the database (image 2). The interface enables comparison between, for example, the genres, credibility scores, domains and social media of the submitted news.

Preliminary findings from 5700 submitted news reviews show, for instance, that participating pupils find a majority of the items in their news feeds rather trustworthy. At the same time, they identify 8% of the sources as not trustworthy, 9% of the news to be based on poor evidence, and 9% of the news items as not trustworthy when compared with other sources. Pupils use a wide variety of news sites, and the tabloid Aftonbladet is very popular. Established news media, tabloids and public service have a strong position in the online news feeds and provide news that pupils find trustworthy to a large extent. In contrast, some newer news sites are seen as far less trustworthy. News on lifestyle and entertainment are perceived to be less trustworthy than other kinds of news like sports, politics and crime. On social media, they find more news via Facebook (58%) than on Instagram (22%), Snapchat (10%) and Twitter (9%). When it comes to spreading more or less trustworthy news, Twitter is deemed to be the most trustworthy (7.4 on a scale from 1 to 10), followed by Instagram.
(6.8), Facebook (6.4) and Snapchat (6).

During the remainder of 2017, the submitted news and their respective ratings and categorisations will be analysed by the researchers connected to the project. In the first quarter of 2018 a popular scientific report of the results will be published and sent to the participating classes. For the scientific audience, a paper will be submitted to a research journal.

Judging from teacher feedback received via the project’s Facebook group, as well as through a pupils’ evaluation survey, the assigned tasks have been met with excitement and engagement from pupils and teachers alike. Apart from providing a boot camp in digital source criticism, while generating massive amounts of data, the project also serves to create an interest in research among young people. From previous mass experiments, we know that the notion of contributing to real research is highly motivating for the pupils.

Apart from the scientific analyses of the data, the project’s next steps include developing materials to further strengthen digital literacy among pupils and to continue the development of The News Evaluator for an international audience. The News Evaluator is a collaboration project between Uppsala University, the non-profit organisation VA (Public & Science) and the research institute RISE Interactive. VA coordinated the project as part of the Swedish events on European Researchers’ Night, in Sweden called FörskarFredag (Researcher Friday).


Thomas Nygren
thomas.nygren@edu.uu.se
Uppsala University

Fredrik Brounéus
fredrik@v-a.se
VA (Public & Science)
For a number of years now, the international context has been the focus of education at Jac. P. Thijsse College in Castricum, The Netherlands. Jac. P. Thijsse is a secondary school preparing students for university and more vocational careers. The students are aged 12 -18 years old. Principal Christine Hylkema says: “We consider internationalization of vital importance in the development of our students so we have even put this at the heart of our school mission.” It is, therefore, nothing less than logical that (e.g. mathematics project: see below). Moreover, worrying about students not connecting with each other proved completely unnecessary.

We aimed to enhance the quality and relevance of the learning offered in education by developing new and innovative approaches. Of course these approaches should not be limited to the schools involved so we decided to create an open educational resource: www.european-classroom.eu. We strongly believe that schools need to be open to a practical form of internationalization involving as many students as possible to develop increasing understanding for each other’s cultures, convictions and beliefs. At Jac. P. Thijsse College, for instance, we want all the students to have relevant knowledge of Europe and international relations.

The European Classroom website contains dozens of ideas and lesson plans that have been developed over the past three years and for a wide range of subjects: art, biology, citizenship, culture, English, history, literature, maths, music, mother tongue and IT. The topics were derived from projects such as ‘The Romantic Age’, ‘Favourite Recipes’, ‘Sustainability’, ‘Democracy and Capitalism’, ‘Relics of the second World War’ and ‘Teaching Maths’ and can easily be adapted for any country in Europe. The site provides ready to use lesson plans, background reading and suggestions for further activities.

One of the most rewarding activities was ‘Teaching Maths’. A group of French students of St. Jacques de Compostelle, Dax, who were about to take their Maths exam in English travelled to Castricum to teach a number of mathematical topics to younger Dutch students. The French were about seventeen years old and the Dutch bilingual students about fourteen. The classes were entirely in English so that worked favourably for both the Dutch and the French participants. With a lot of enthusiasm and mutual respect the students worked on their maths and learned so much more while doing that.

Actually, the two schools decided that this worked so well that they have now started a fully-fledged exchange project with each other based on the subjects maths and history.

Many more fine examples of new approaches can be found on the website. We invite teachers of other schools from all over Europe to make their own contributions to the site, thus continually renewing the contents. Although the project itself came to an end in May 2017, it is our goal to keep the website running for many years to come.

René Wellen
rwl@jpthijsse.nl
Perhaps the most important issue in our times is how to sustain our planet’s resources, while increasing the welfare of a growing population. This monumental task has been defined in the concept of sustainable development (SD). In response, Education for Sustainable Development (ESD) has been launched as a teaching approach to solve this dilemma. The underlying idea is that ESD should foster young people into knowledgeable, reflecting, critical and active citizens who will make rational decisions, thus, in the long run, transforming the world into a more sustainable place. ESD has been adopted globally as a consequence of the UN Decade for Education for Sustainable Development (2005-2014), which has reshaped curricula worldwide. In the years to come, it is suggested that the Global Action Program (GAP) on ESD will generate and scale-up concrete actions implementing ESD globally and locally. GAP is intended to make a substantial contribution to the ESD implementation process in the post-2015 agenda through a so-called Whole Institution Approach.

As a response to the intentions of the GAP, the Karlstad Municipal Education Department (barn- och ungdomsförvaltningen och gymnasieförvaltningen) in Sweden, decided to initiate a project to facilitate the development of ESD in the whole school organization, from the age of one year old children in pre-schools to 18-19 years old students in the upper secondary school. The project is running from 2017-2019 and is guided by the latest research in the field, as a consequence of a close collaboration with ESD researchers at Karlstad University. The project started with 10 pre-schools, four compulsory schools (age 7-16) and one upper secondary school (age 16-19). The intention is to involve more schools and pre-schools along the way in the project.

To support the schools in their ESD-development processes, a Teacher Professional Development (TPD) program was designed (see Figure 1). The TPD-program focus on two major parts. Firstly, there is the process within each of the participating schools, which could look different between the schools depending on their point of departure. Secondly, there are a set supporting seminars. The content of the seminars is decided based on research, evaluations and feedback from the teachers (there is longitudinal research connected to this unique ESD development project). Hence, the seminars aim to give guidance and input to the processes in the schools. All the teachers in each of the schools participate in the seminars to be able to establish a joint holistic idea around ESD. Figure 1 shows the ESD TPD-design with the aim to support the teachers ESD development process. In the end, we expect different kind of outcomes at the child/student level. For example that they will:
- develop their action competence
- experience a higher level of well-being
- experience instruction as more meaningful and relevant
- experience a higher level of participation and empowerment
- develop an increased level of sustain-
ability consciousness (a concept developed in research at Karlstad university)
• reach a higher goal achievement in respect to the objectives of different subjects.

Previously in Sweden it has been common to implement ESD using different kinds of certifications or awards. Research has shown that this has not been a successful way of implementing ESD. In Karlstad, the idea is to implement ESD in another way, which according to research will have an effect at the student level. In Figure 2 below, you can see the main idea behind the school development project and the processes initiated at the participating schools. The figure describes the teaching that the young people within each school are supposed to experience.

The part in the bottom of the figure describes the approach to the content, which forms the holistic foundation for collaboration between teachers at the school. The upper part of the figure is about the approach to teaching and learning, often described as ‘pluralism’. Collaboration between teachers becomes necessary if the children/students should be able to experience the kind of teaching that prepare them with capabilities and action competence to deal with the complex issues that is the reality in the society. In a forthcoming follow-up article, I hope to come back and talk more about the relation between action competence and pluralism.

Daniel Olsson
project manager
daniel.olsson@karlstad.se
How big is the Universe? What is the distance to the closest star? Which came first, the dinosaur or the egg? What impact did the introduction of agriculture have on humanity? All of this and more is discussed during the new course Big History which is taught at the Teacher Training College at The Hague University of Applied Science in the Netherlands. Big History has been developed and taught in the US since 2011, by David Christian. The 4th year students in this interdisciplinary course are taken through the Big History of Earth and life upon it; from the Big Bang to the present. Subjects as geography, history, biology, physics, healthcare and gymnastics are all united in this thematic course. Advanced complexity plays an important role as does the Goldilocks’ principle. The Goldilocks’ principle refers to The Three Bears, a children’s story about a girl named Goldilocks who tastes three different bowls of porridge, and she finds that she prefers the porridge which is neither too hot nor too cold, but has just the right temperature. When the circumstances are just right the next threshold can be reached.

Big History threshold moments:
1. The Big Bang
2. The stars light up
3. New chemical elements
4. Earth & the solar system
5. Life
6. Collective learning
7. Agriculture
8. The modern revolution
9. Sustainability?
The first step in the process is that the students engage with the content. The Teacher Training College at The Hague University has a cooperation agreement with Het Museon, The Museum of Natural History in The Hague, where at the start of the course the students are expected to gather information. After this initial engagement with the content, the students will make a personal dossier with assignments of their own choice. The assignments show the different thresholds in Big History and the students will understand how everything is connected with each other in the Universe. The goal of this understanding is to change the attitude of students towards sustainability, which could be considered the 9th threshold.

After researching several subjects related to sustainability at the students’ schools, the students will form groups and design an educational program for primary school. The educational program will be based on one of the 17 Sustainable Development Goals (SDG). Following a short inventory at their primary school, the student will know which subject to pick, to develop and to complete the school’s curriculum on this topic.

After developing the new program, it is tested in real life with the children from the primary school. Once it has been tested, it is evaluated and reflected on by the students and the mentor. Later on, the students have to suggest improvements.

The outcome of this research, development, testing and evaluation is presented in the student group. Other students then give feedback and discuss the different aspects of the designed educational programs.

Sustainability plays an important role in the assignment. The outcomes are promising, and several schools have said that they are enthusiastic about the experience and are willing to use the educational programs in their curriculum. Children and parents are also really enthusiastic about the activities and the new insights.

The SDG’s that are chosen the most are Good health and well-being (3), Affordable and clean energy (7), Responsible consumption and protection (12), Climate action (13), Life below water (14), Life on land (15). These goals are the most obvious and necessary to be chosen fitting the educational program in the Netherlands.

Ilonka Prins
The Hague University of Applied Sciences
i.prins@hhs.nl
The Global Goals for Sustainable Development promotes through the fourth goal “Quality Education”, that “by 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles.”

At Nyköpingsgymnasium, an upper secondary school in Nyköping, Sweden, this has been realized through the concept of a sustainable method called “Braingym”. This is based on the fact that the human brain is plastic and can be trained. The teachers implement different ways of doing this. The Braingym Concept was presented in a workshop at the Learning Teacher Network Conference, Re-thinking Education in Aarhus, Denmark in September, 2107. Learn more, see link below.

The general pedagogic idea is based on three stages; Heart - Brain - Hand, a concept inspired by PH.D John Steinberg Doctor of Pedagogics, lecturer and author. Initially, the teachers seek for ways to engage the students’ emotions and relate to their own world. This is followed by work with tasks and assignments in various school subjects, often practical e.g. teachers collaborate and combine theoretical and vocational courses to improve both. Braingym focuses on ten areas, or aspects, with the following brain benefits:

**ASPECTS brain benefits**
- **PHYSICAL ACTIVITY** - new brain cells and synapses are produced. Dopamine level increases.
- **FOOD** - level of Myelin and Serotonin increase
- **SLEEP** - restore brain cells and engage process for Synaptic plasticity
- **POSITIVE THOUGHTS** - level of endorphins increases
- **LEARN NEW THINGS** - increased synaptic activity and larger Hippocampus in combination with Physical activity. Working memory.
- **VARIETY** - stimulates brain cells’ growth
- **COPING WITH STRESS** - less Cortisol levels during stress over time
- **FRIENDS** - Mirror neurons activate empathy
- **REPETITION** - challenge the brain cells and remember more
- **MAKE DECISIONS** - choice increases Dopamine levels

Learning, understanding and applying the aspects and brain benefits is part of the implementation, and is realized through the national curriculum and everyday teaching activities.

All activities are based on up-to-date brain research and has been a part of a larger project aiming at increasing the students’ grades and wellbeing. The project has been successful. For example, physical activity in combination with teaching and learning increase the students’ creativity, memory capacity and resilience.

This can, for example, be realized by doing an activity called Walk & Think. If students are to write an essay about a special topic, the teachers first introduce the assignment, and then the students may leave the classroom for 5 - 15 minutes. More blood flows through the brain which makes synapses more active and ideas about what to write about are born. The students return to their classrooms and start writing the essay. In addition, they do not get tired after thirty minutes. Another variant of this method is called Walk & Talk. Then students discuss specific questions before an assignment. Moreover, the Friend aspect is applicable. Research has shown, that having a good friend in school, is one of the most important and crucial factors, when it comes to how effective learning will be if you move schools. Hence, also teachers emphasize the importance of establishing good relations with all students. This is especially relevant if you work with low motivated students.

Teachers often use Brain-breaks in class. Sitting is the new smoking, and for example standing tables for students, will enhance the learning effect and resilience. The school even offers table tennis as an activity during lessons which is an excellent hand-eye-brain activity. It is good for creativity, and fun!

Before significant exams, the school invites the students to work out and eat breakfast together. This concept has proven successful and will be further developed.

A unique Brain-gym room has been designed to meet the needs required if you want to work with the ten lifestyle habits, or areas. Here, for instance, you can find stationary bikes, on which you can work out and study at the same time!

A Sustainable Concept for Life Long Learning where The Global Goals number three and four enrich one another, with the students’ brain in focus. Health & Wellbeing and Education. The teachers have seen many positive effects of the Brain gym concept up to now, one of which is more harmonious students. This is indeed, a good start for learning and feeling well for a very long time!

**Kjell Nilsson**

kjell.nilsson@nykoping.se

https://braingym4you.weebly.com/
A Pond Full of Flowers

A learning experiment of interdisciplinary pedagogy using a laboratorial method inspired by the children’s approach in Reggio Emilia.

The protagonists the pillars of the project are: the theme of “flowers”, the “learning space”, the “documentation” process and the “narrative text”.

The laboratory, a “space” of research, investigation, uncertainty, where you can choose whether to work alone or in a group; “place” where we are questioning ourselves but “place” of silence and observation of knowledge processes.

“Linnea in Monet’s garden” by Christina Björk, tells of a nice friendship between two neighbors: Mr Blum, a sweet old man, and Linnea, a curious 10-year old child. Both of them love to spend afternoons browsing art books describing famous works by Claude Monet and observing basil plants on the window sill. Something connects the two of them; they have a common interest that pushes the two friends to embark on a journey first to Paris and then to Giverny to visit “The pink house of Monet”. A desire to know arises in both of them, to know about the story, the life, and the habits of the famous impressionist painter.

Mr Blum and Linnea enter the French landscapes; they get lost in the many and colorful rooms of “The pink house”. They wander in the garden observing: the bridge, the boat, the water lilies and the many varieties of flowers. It is, indeed, not easy to recreate these surroundings “en plein air” in another place, but the atmosphere, the climate and the relations between protagonists of this educational trip (25 7-year old children from the Martiri di Belfiore school, 3 teachers, 1 master of arts, 2 helpers) collaborate to give life to a laboratory experience.

All the class is in the garden of an old 16th century Villa (Villa Cavalcabò in Curatatone), in the atelier of an important local painter: Sergio Negri. We are surrounded by the countryside, surrounded by nature and every child has brought from home: just a flower.

The children know that they are to spend 3 hours outside the classroom, to visit the atelier, to paint and to play...

After diving into the great rooms of the palace, with frescoed ceilings and still furnished some vintage furniture, we go under a “pergola” with a grapevine. We take our place around a long table and work “en plein air” with colorful chines, brushes and paperboard. The children create a pond while they are listening to a recorder with different sounds of water: swinging water of a thunderstorm, the flow of a stream, stormy sea, hail, etc.

They divide the flowers giving the right name to the parts, the ‘nomenclatures’ and so they separate: petals, thorns, leaves, pistils and branches.

Then the children recompose new forms on the immense bluish pond by using different parts of the flower and thus giving life to new and imaginative living beings.

The children alternate and move autonomously around the table and they are focused, amazed. The casual and experienced master retouches with the brush, whereas the teachers “support and mediate” the activities by explaining theoretical steps. The contribution of the two helpers is important as they provide the appropriate materials promptly during the various working phases. The educational process of this path gives us an artefact: murals (2 meters x 4 meters) which will then be hung in our school canteen.

It is sought to span from literature, art, music, and history... with a touch of interdisciplinary. As Edgar Morin says: “By integrating the information, one comes to a complexity of non-fragmented thought. It is about building knowledge as an exchange between reflection and experience, where subjects involved in the educational process cooperate in solving the problems, and poetry is helpful to break the barriers to misunderstanding”. (Mantova, September 2012).

Simona Farina
sfarina68@gmail.com
Second class, primary school “Martiri di Belfiore, Mantova-Italy

Translation Mia Bomholt Andersen
National evaluations shows that the school subject Sloyd is one of the most popular in Swedish compulsory school. Sloyd is appreciated by students and often described as fun and pleasant.

Sloyd is an obligatory school subject typical for Nordic countries and quite similar to craft and design. The purpose of Sloyd in Swedish schools is to develop students’ ability to create a functional design, to choose and handle suitable materials as well as managing different tools and techniques, and to analyze and evaluate the working processes. The aim also includes being able to make interpretations of aesthetic and cultural expressions of objects.

Pictured in this article is a Sloyd project which engaged nine to ten year old students and their teachers, a project that ended up in an exhibition related to European Capital of Culture in their hometown. “Joy” and “what makes you happy” were themes investigated by students. Their thoughts were made in small pieces of embroidered half cross stitches, sewn together and combined with re-used embroidery. Having fun is of course important in educational settings, but when it comes to fun as an epithet for a practical and aesthetic school subject, it becomes more problematic. Sloyd, and other aesthetic

Emotionality, Making and Learning in Sloyd Education

stered seating furniture, today housed in a school library in town. The shape of the pallet, the colors and the short, chubby legs were all chosen by students to express joy.
subjects, sometimes suffer from being considered as variety in a more theoretically based school context or as important just because they can support learning in other school subjects. This is a view grounded in polarized thinking about theory–practice, make–think, which neglects the depth in the subject content of Sloyd.

In my dissertation from 2015, students’ emotional experiences in Sloyd were studied. The aim was to explore how students’ feelings and emotional experiences were related to learning in Sloyd, a learning often hidden behind the “fun-word” and seldom verbally articulated. In the educational field, connections between emotions and learning still are a blind spot sparingly investigated. Emotions basically are assessments of how a specific situation is meaningful or not and my result shows how closely connected students’ emotions are to action and making. By observing Sloyd lessons and interviewing eighth grade students, four different emotional approaches were found, which students variously adopted in their work. For some students, one specific approach was dominating with consequences for possible learning. The approaches were connected to students’ individual relationships and sense of affinity with the emerging Sloyd object as well as to emotionality and the function of emotions in students’ processes.

The Repudiating approach is characterized by weak relationship to the object. Negative emotions dominate and result in avoidance. In The Approach characterized by insecurity frequent emotional fluctuations occur and students are dependent upon others to manage their work. Rich social interaction is therefore important to them. In The Accepting approach, a student’s relationship to the Sloyd objects is based on the benefit of just doing the task and getting a grade. Emotions are then suppressed. Finally, The Incorporating approach, centers on a strong sense of affinity and dependence on a deep interaction with materials and tools. Emotions are not expressed by students; instead they are used for decisions inside the process.

The results stress the importance of students’ personal engagement for learning and their need of support to be able to stand negative emotions while working in Sloyd. Positive as well as negative emotions are necessary for decision making in design processes which challenge tendencies in school to avoid negative emotions. To consider emotions and to emotionally support students in their work is therefore opening up a deep, engaged learning.

Stina Westerlund, PhD
University of Umeå, Sweden
stina.westerlund@umu.se
This article is a reflection on the initial findings of a small scale research project, which grew out of my experience of working for an NGO as an education volunteer in Papua New Guinea (PNG). NGOs have long held a pivotal role in supporting the provision and development of education programs in low and middle-income countries. Organizations such as the Voluntary Service Overseas (VSO) and World Health Organization (WHO) consider education to be the primary factor in realizing the vision of a world without poverty.

As non-profit making and non-politically affiliated organizations, NGOs afford a degree of independence of philosophy but cannot operate without the funding from donor agencies or the invitation of the government in the country which they wish to support. Sensitive negotiations between these stakeholders is frequently required and tensions can arise if their respective perspectives and priorities differ. For example, the donor agency may have a policy of favoring program designed to improve educational access for girls, the government may want support for the improvement of proficiency in literacy and numeracy whereas the NGO, may have identified a need for an intervention program to improve the understanding of basic health and hygiene. Furthermore, the NGO, needs to demonstrate to the major stakeholders that their proposed program is valuable, sustainable and that they have personnel with relevant qualifications and experience to deliver such.

Given the above, however, there is a danger that operating from an international globalized world view, we can lose sight of the micro level and, most of all, what are the needs of the people who will benefit from intervention programs. In a top down, 21st century, world we tend to look at the world from organizations downwards but it is people and not organizations who, in the words of the VSO, ‘are the best agents of change’. Any education intervention is only as effective as its ability to empower people and improve their livelihoods. Whilst increased globalization does open up the opportunities for the exchange of knowledge, there is still a need to be culturally and individually sensitive. A successful education program in one country does not necessarily translate easily to the context of another where concepts and traditions are different. The implications are that whatever context of education we operate in, we should be mindful of what is relevant and what is not. Whilst it is valuable to have that knowledge exchange, it is also vital to keep a focus on what is unique in our own settings.

Finally, it is important to remember that the work of NGOs does make a difference in supporting the development of education programs across the globe and for anyone seeking a challenge and an opportunity to experience teaching in a different context, NGOs value the input from qualified practitioners who are willing to give their time and expertise to live and work outside of their usual setting. Life can be challenging but also very rewarding and an opportunity to re-evaluate our own teaching methodologies. For me, the cliché is certainly true - I gained as much from the experience as I gave.

Helen Horton
h.horton@lancaster.ac.uk
Teacher Training in Active Learning Techniques as a Pace for Changes at Sumy State University

Nowadays, when the world is changing every day, the educational system has also to be changed somehow to fulfill modern requirements. Students, while studying, have to get competences for the 21st century. The teacher’s role is pivotal to educate students and to help them gain competences of critical thinking, complex problem solving, creativity, emotional intelligence, coordinating with others, negotiation etc., in ever-changing surroundings. What is even more important is to develop the students’ capacity in life-long learning as most of the material learned today will not be needed anymore tomorrow. Taking that into account, one can understand the role of teacher shifts from being mostly a lecturer to becoming a mentor - a facilitator. That means nowadays teachers are to teach differently and apply new approaches to the study process.

Despite this, the educational process in many cases stays formal with mostly traditional lectures and practical classes in Sumy State University (Ukraine), as well as in many other universities worldwide. Being responsible for teacher training at the university, I could not stop myself from trying to implement a new teacher training program dedicated to active learning techniques. The idea of the traineeship is that teachers, who have already tried to apply new approaches to the educational process, share the experience with their colleagues involved in teacher training.

The training program included several particular aspects: lifelong learning, active educational techniques, e-learning and
blended learning, gamification and mobile devices used in learning etc.

Such active teaching techniques were discussed and applied during the training program as case-studies, flipped classroom technique, debates, simulation games, world café, open space, “think, pair, share” strategy and pitching etc.

Several enthusiastic lecturers were invited to share their experience of different methods from the traditional way of teaching techniques with participants on the training program. These teachers have already applied the new approach in their classrooms; they could say what worked well during their courses and what did not and why.

There was one more interesting issue during the training program: the participants were teachers from different fields and departments. As a result, they found out unexpected ways of applying different active teaching techniques. (Some of them did not even know it could be used in their classroom.) Additionally lecturers from different departments had an opportunity to talk, to share ideas and find the way for future cooperation.

The teacher training in active learning techniques was performed during a period of almost two months in IdeaLab, a creative educational space at Sumy State University. I found out that was the right place to apply a new study approach. The study place of IdeaLab is non-formal itself making it easier to try something different from traditional forms of running classes. The participants found it comfortable and joyful.

Nevertheless not all the participants felt comfortable with new teaching techniques at the beginning of the traineeship (mostly because of the different age of participants in one group, titles, their experience and background). All of them joined the “active” classes and participated in all the activities. They found the teacher training program interesting and useful.

We’ve just started with such a type of training program. Hopefully, more and
more teachers will understand the urgency of changes and will join it in future rounds.

As an additional inspiration and a small tip I want to add a link to a primer on Innovative Teaching Techniques that was created by lecturers and researches from the University of St.Gallen (Switzerland), Sumy State University (Ukraine), and University of Tartu (Estonia) as a result of SCOPES project funded by Swiss National Science Foundation. One can use the ideas to improve the way s/he is teaching the course, to apply active learning techniques, and to make the course correspond to current requirements in an ever-changing world.

Innovative Green Teaching.
Primer on Innovative Teaching Techniques of Environmental and Energy Topics

This primer is intended to assist teaching faculty at institutions of higher education with the integration of new teaching techniques in their classrooms. The primer offers a list of possible approaches and provides some useful links, which can serve as inspiration and a starting point. After providing a general overview of interactive teaching techniques, we adapt our examples to the field of teaching environmental and energy topics. While this primer should be useful for teaching a wide range of undergraduate and graduate classes, it has a particular focus on environmental and resource economics, energy policy and economics, entrepreneurship, sustainable business and management.

The primer is available to download for free at Sumy State University website: http://goo.gl/JSHzHS

Dr. Nadiya Kostyuchenko
Head of Teachers Training Faculty
Associate Professor,
Sumy State University, Ukraine
n.kostyuchenko@fpkv.sumdu.edu.ua
The International GAP Seminar, with input from recognized experts and interactive discussions among the participants, offers a learning space to explore, learn more and elaborate on how schools and teacher education institutions can handle immigration and migration from the perspective of Human Rights and Quality Education.

We welcome you to participate in the Palermo Seminar, which will be enjoyable, inspiring and will address this key issue, crucial to the development of education and training, to ensure inclusive and equitable quality education for all.

We are very pleased that we have Professor Leon Tikly from the University of Bristol/UK and UNESCO Chair Charles Hopkins from York University in Toronto/Canada as distinguished international experts for good quality education, diversity and ESD with us at the seminar. They will share their wide expertise in two keynotes and in their active participation in discussions during the seminar. Dr. Susanne Müller-Using, LTN EC-member and researcher at Osnabrück University will contribute regarding her expertise on good quality education with a keynote on Human Rights Education skills for teachers in multicultural settings.

**The Framework**
Education for Sustainable Development (ESD) allows every human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future. ESD means including key sustainable development issues into teaching and learning. The United Nations has adopted the UNESCO Roadmap for implementing the Global Action Program (GAP) on Education for Sustainable Development.

The GAP has two objectives:
* to reorient education and learning so that everyone has the opportunity to acquire the knowledge, skills, values and attitudes that empower them to contribute to sustainable development - and make a difference;
* to strengthen education and learning in all agendas, programs and activities that promote sustainable development.

The Learning Teacher Network is an official UNESCO GAP Key Partner on the capacity building of educators and trainers (GAP, Priority Action Area 3).

The Sustainable Development Goal number 4 “Quality Education” - within the 2030 Agenda for Sustainable Development - is to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Dr. Susanne Müller-Using
Osnabrück University
Executive Committee LTN member & leader of the ESD Seminar organizational team

The next issue of the Learning Teacher Magazine will be published in March 2017. Articles may be submitted no later than February 15 2017
**Keynotes**

**Professor Leon Tikly**  
University of Bristol, United Kingdom

Leon Tikly is Professor in Education at the University of Bristol. His keynote *Towards a quality education for all: how schools can promote inclusion and diversity* is embedded in his research over many years into the quality of education in Africa and for immigrant learners in the UK and Europe. In the course of his research, Leon has worked closely with education policy makers and educators to implement evidence-based practice in schools. His understanding of educational quality addresses issues of inclusion as well as social justice. Leon is currently writing a book on quality education and sustainable development.

**UNESCO Chair Charles Hopkins,**  
York University, Toronto/Canada

Charles Hopkins holds the UNESCO Chair on Reorienting Teacher Education to Address Sustainability, focusing upon the development of an international network of teacher preparation institutions collaboratively working on the reorientation of teacher education to address sustainable development. Hopkins is also a senior advisor to UNESCO’s Transdisciplinary Project, Educating for a Sustainable Future and the Chair of the Education for Sustainable Development Working Group of UNESCO Canada’s Man and the Biosphere Committee (MAB). In addition, he is the executive director of the John Dearness Environmental Society and an advisor to Environment Canada’s Ecological Monitoring and Assessment Network (EMAN).

**Dr. Susanne Müller-Using,**  
Osnabrück University, Germany

Dr. Susanne Müller-Using is scientific director of the interdisciplinary research cluster *Costa Rica Center* and speaker for the research group *Values and Human Rights Education* at Osnabrück University. From 2004 on she works as scientific collaborator at the Educational Institute at the Osnabrück University, taking part in several intercultural and comparative research projects in early childhood and school education. Her research focus is on comparative education research, especially on teacher education, ethics and human rights education, empathy and intercultural competencies of teachers, individual pupil encouragement and creativity, school quality development. Susanne is Executive Committee member of the Learning Teacher Network.
International LTN GAP Seminar
“Immigration and Good Quality Education”
Palermo April 26 - 29 2018

Full Conference information on: