

CONNECTING THROUGH SCIENCE



Lednice 24-31 October 2014

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I. Connecting through Science (CtS)

Youth Exchange “Connecting through Science” took place in **Lednice, Czech Republic** in the week of **24th till 31st October 2014**. Lednice is set in a beautiful environment of the UNESCO heritage site in the South Moravian region.



This project connected young people interested not only in science but also in self-education, active citizenship and meeting new people from all over Europe. There were eight youths from the Czech Republic and five youths from following countries: Croatia, Estonia, the Netherlands, Slovakia and Slovenia.

This Erasmus+: Youth Exchange “Connecting through Science” aimed especially at youths who are interested in the world around them, who are interested in science, who are looking for an opportunity to experience other European countries and who would like to learn something about science as well as active citizenship. This project also encouraged participation of young people from disadvantaged backgrounds (cultural, special needs, learning difficulties, socio-economic status).

The main aims of this youth exchange were the following:

1) to increase mobility opportunities in order to discover new cultures, traditions and life-styles **(learning from others)**

2) to improve the level of key competences and skills of young people in order to enable them to expand their career perspectives **(growing as individuals)**

3) the presentation of science as a means for developing participants' abilities and competences using non-formal and informal educational methods **(I am impressed by nature + learning by playing)**

The project also aimed at the personal development of participants: supporting them in expressing their own opinion and presenting their own ideas, views and expanding their mental horizons.

During the six working days of this youth exchange, the participants worked with the following topics: integration, sharing ideas and experience, bioethics, physical and visual impairments and other disabilities, interactive genetics and active citizenship. All the topics and activities led to developing the key competences and to achieve all the mentioned goals. Methods of non-formal education, improvising the disabilities on ourselves (in order to gain empathy) and discussions with experts in the field of science were used.

An important part of this youth exchange was “learning by doing”. Our participants had the opportunity to present their own work and action plans, strengthening their self-esteem through this activity. Moreover, they had a chance to express themselves in a project booklet which is the summary of the project outcomes, including individual activities, their main aims, methods and competences that should be improved. And this booklet you are reading right now!

An overarching aim of this youth exchange was to spread awareness of this project topic among general public. During our youth exchange we also had a discussion with the policy makers of our region, the regional governors Ing. Jaroslav Parolek and Ms. Bohumila Beranová, who gave us insight into what is being done by the policy makers on the regional level to support the non-formal education, science, young scientists and active citizenship.

6 Connecting through Science

This youth exchange is now finished and we hope that our participants' competences have improved and they gained new friends from Europe. During the main activity of the project, Poster Fair, the participants presented their posters in a popular way followed by discussion with the other participants but also with other invited guests. This activity took place in the city of Brno, which is associated with the famous scientists, J. G. Mendel.



2. European Youth Centre Břeclav

European Youth Centre Břeclav (EYCB) is non-profit non-governmental organization founded by young people for young people in 2007. The centre was created with financial support of the Vodafone foundation and it resides in the building of the Gymnázium Břeclav (a grammar school), which significantly contributed to its creation.

The main mission points of EYCB are:

- ✓ **INFORMING** and raising awareness of the European Union and its educational programmes
- ✓ **PROMOTING** self-fulfilment and personal development of young people through educational programmes of the European Union
- ✓ **DEVELOPING** non-formal education, intercultural dialogue, international cooperation and active civil society

Among our activities belong:

- participation in international projects within the European educational programmes
- preparation and implementation of projects within the European educational programmes
- group and individual trainings, lectures and team-building activities

- informing the general public about the European Union and opportunities that the EU offers
- establishment of international networks and contacts between non-profit organizations

Email eycb.info@gmail.com

Website <http://eycb.eu/en/news/>



Organizers: Eva Janečková, Jana Parolková, Jakub Miklín, Ondřej Svačina

Participants: Marie Příbylová, Michal Havelka, Tomáš Bednář, Jan Vacek

Experts: Martina Nekolová, Kateřina Musilová, Michal Havelka, Radka Bartoňková, Martin Kučera

3. SYNCRO (Croatia)



The real voyage of discovery consists not in seeking new lands but seeing with new eyes.

Centar za osobni i profesionalni razvoj Syncro

Syncro is a non-governmental organization active in the field of non-formal education, personal development and international cooperation with the aim of supporting and increasing the quality of life by empowering individuals to become proactive and responsible people.

Syncro is a part of International Synergy Group with whom we share a common vision of a world that works for everyone. International Synergy Group is a network of 35 organizations from all of the Europe, working together to offer opportunities for education and development of young people, groups and society.

Syncro was founded in 2010 and since then more opportunities for young people have been available through the programmes every year, and more professionals and volunteers have been involved in the work of the organisation.

Syncro is active on a local and an international level, through educational activities. We coordinate and deliver international personal development trainings and youth exchanges that develop personal competences of young people, together with professional skills of youth workers. At the same time, we organize local events in Croatia, such as

youthclub, awareness programmes or sport and community events and support young people in developing their own projects.

In Syncro programmes we use methods of non-formal education: learning by experience, learning through games and role playing, personal development tools, outdoor education, creative workshops, coaching, theater and dance.

The aim of our activities is to empower people to develop skills, know-how and attitudes to lead responsible and quality life, and as active citizens, to take care of themselves and those around them.

Syncro is gathering people active in youth work, professionals and volunteers, with experience in group facilitation, project management and innovation.

Website <http://www.synergy-croatia.com/en>



Group leader: Karlo Brunović

Participants: Lada Jovović, Paula Krilčić, Lora Savin, Antonella Paladin

4. Seiklejate Vennaskond (Estonia)

Seiklejate Vennaskond is youth and civil society organization, which connects active and adventurous people together. We work mainly with young people, but also with youth workers, trainers and teachers and organizations active in non-formal education field and lifelong learning. Our members have participated and organized different youth exchanges, seminars and training courses concerning equality, media impact, innovation, fight against racism & xenophobia, human rights, mobility and migration, HIV prevention, environment protection and other issues. Our volunteers gather every month to take up new ideas and think how to put them into practice. We sincerely believe that young people today can make a difference and we all work for this purpose.

First activities of the organization date back to the year 2003 when group of active young people got together to organize a youth exchange. After that there have been many local regional activities concerning integration, adventure tourism and different interest specific activities. Since 2010 Seiklejate Vennaskond has transformed from non-formal youth group to a registered non-profit organization.

Members of Seiklejate Vennaskond have taken part in several projects in programme countries, neighbouring regions and also in Africa and Asia.

Members of Seiklejate Vennaskond meet regularly to put their ideas into practice and develop new projects and activities. All activities are organized by volunteers and voluntarily. There are members all over Estonia in the organization and there are even regional grouping in 5 counties. The main age group of members is from 16 to 35 + people working with young people (without age limit). Many members come from rural/remote areas, so Seiklejate Vennaskond has also young people with fewer opportunities involved in the organization.

Website <http://www.seiklejad.org/in-english.html>



Group leader: Ursula Ilo

Participants: Karolina Kuusik, Kristina Tammes, Liisa Uutsalu, Piret Sommer

5. Youth Connectors (Netherlands)

Youth connectors

Youth Connectors is a national youth organisation that wishes to bring young people together with each other with the purpose of creating a more social cohesive society. Due to digitalisation and the rise of the social media, an increasing number of youth spend an ever increasing amount of time on their gadgets.

For many youth getting together at social gatherings has become less attractive than staying at home playing on game consoles. Even when young people gather, there is a tendency to communicate through smartphones instead of direct social interaction. With our events we are trying to shift the focus from digital communication to personal communication.

We conceptualise and organise creative events where young people can get together for to learn, share and have fun. Social gatherings improve the participants's social skills and are important to make meaningful

connections with their peers. We organise cultural exchanges, quizzes and game nights. As of this year, we organise a game night every other week.

Email youthconnectors@gmail.com

Website youthconnectors.wix.com/youthconnectors



Group leader: InekeBom

Participants: MarlyKammerer, YouriVakoulsky, Emily Tegnell, Wijcher van Dijk

6. STEP(Slovakia)

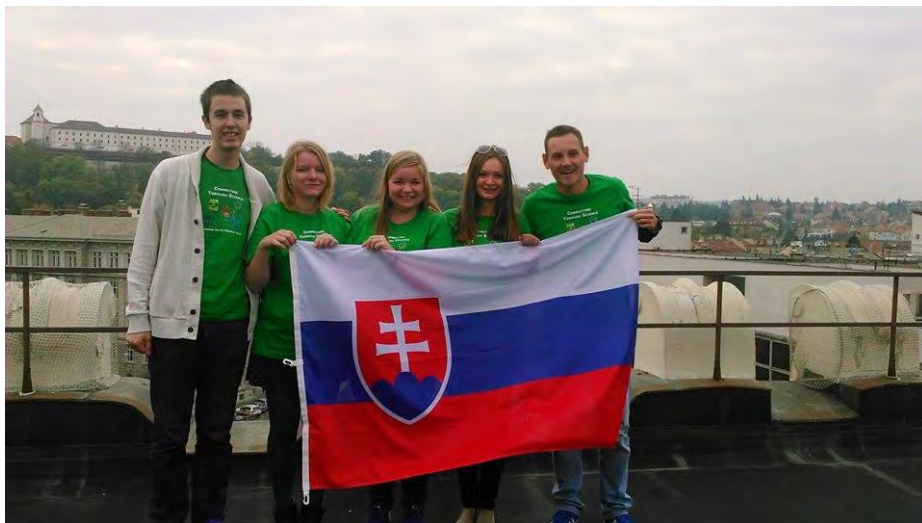
STEP Civic Association - Community for Regional Development is a non- governmental and non-profit organization based and operating in eastern Slovakia since 2010. STEP was founded as an organization in the village Zemplínske Hamre, where it comes from its membership base, but over time, our scope has grown to the regional level.

Our main goal and mission is to create conditions for children, youth and adults for personal development, educational level, and relationship to the animate and inanimate nature. Through these activities and projects not only contribute to the development of our community members but also to the development of our region and its inhabitants.

STEP scope ranges from local to international level, where we have created a stable network of partners within the EU.

Our target group are young people, as bearers of responsibility for future generations, who are necessary to create the modern, educated, experienced and open minded people in order to ensure economic growth and regional development in our region. The means to achieve these objectives is the participation of young people in activities that teach them multicultural environment, develop their linguistic and professional competence and teach them to be independent and responsible active citizens of Europe today.

Website <http://www.societystep.eu/>



Group leader: Dávid Drexler

Participants: Laura Lukáčová, Petra Papierníková, Zuzana Ďurianová, Marko Pira



7. Závod SRC3(Slovenia)



SRC3 is a Slovenian youth organisation based in Trbovlje. It's a non-governmental, non-profit organisation that was founded quite recently, in 2014. It is divided into three subdivisions:

- SRC3 young (youth exchanges, non-formal education),
- SRC3 DESIGN (graphic design, web design, typography),
- SRC3 HELPER (projects, helping the disadvantaged, volunteer work).

Zavod SRC3, zavod za socialno in pravično družbo, Trbovlje, Slovenia
Vreskovo 13 a, 1420 Trbovlje, Slovenia

Facebook <http://www.facebook.com/zavodsrc>

Group leader: Severina Siter

Participants: Maruša Pangeršič, Uroš Ribič, Ema Karo, Selma Karahasanovič



8. Erasmus+: Youth in Action

Changing lives, opening minds!



Erasmus+

Erasmus+ is the new EU programme for Education, Training, Youth and Sport for 2014-2020.

Youth in Action is the Erasmus+ programme chapter for non-formal education in the field of youth.

Structure of the Erasmus+ programme:

Key Action 1: Learning mobility of individuals

Key Action 2: Cooperation for innovation and the exchange of good practices

Key Action 3: Support for policy reform

Among these Actions (but not exclusively) connected with the field of youth (non-formal and informal learning) are:

- Mobility projects for young people (Youth Exchanges and European Voluntary Service) and youth workers
- Large-scale European Voluntary Service events
- Strategic Partnership
- Capacity Building in the field of youth
- Meeting between young people and decision-makers in the field of youth

Specific objectives of these actions are to:

- ✓ improve the level of key competences and skills of young people, including those with fewer opportunities, as well as to promote participation in democratic life in Europe and the labour market, active citizenship, intercultural dialogue, social inclusion and solidarity, in particular through increase learning mobility opportunities for young people, those active in youth work or youth organisations and youth leaders, and through strengthened links between the youth field and the labour market
- ✓ foster quality improvements in youth work, in particular through enhanced cooperation between organisations in the youth field and/or other stakeholders
- ✓ complement policy reforms at local, regional and national level and to support the development of knowledge and evidence-based youth policy as well as the recognition of non-formal and informal learning, in particular through enhanced policy cooperation, better use of EU transparency and recognition tools and the dissemination of good practices
- ✓ enhance the international dimension of youth activities and the role of youth workers and organisations as support structures for young people in complementarity with the European Union's external action, in particular through the promotion of mobility and cooperation between stakeholders from Programme and Partner Countries and international organisations and through targeted capacity building in Partner Countries

Source of this chapter: Erasmus+ Programme guide

For more information see: http://ec.europa.eu/programmes/erasmus-plus/documents/erasmus-plus-programme-guide_en.pdf

9. Activities of the youth exchange (CtS)

Activities of this Youth Exchange reflected methods of non-formal education and informal learning were devoted to increase seven key competences (out of eight) of our participants.

Key competences:

1. Communication in the mother tongue

All participants knew their mother tongue (knowledge) that they used it for discussions in national groups (skill). This way they enriched their vocabulary and expression (attitude).

2. Communication in foreign languages

All participants know and speak English (knowledge). Speaking and listening to other participants from different countries helped them to improve their own English (skill). Interest and wanting to communicate with others forced participant to improve their skills (attitude).

3. Mathematical competence and basic competences in science and technology

These were the most important competences of this Youth Exchange. Participants developed their competences in asking and answering questions in the field of science and they gained awareness of basic methods used in genetics and biology (knowledge) that could help participants to make conclusions from scientific experiments and evidences. Participants developed their competence for understanding changes caused by humans and they understood also that they are responsible for their acts. Participants got to know basics of scientific research and were able to discuss the basic facts and make conclusions (skill). Moreover, they gained a positive attitude towards science and they increased their critical thinking in ethical questions that are with no

doubt connected to science. Last but not least participants gained interest in scientific development in terms of European and world-wide society (attitude).

4. Digital competence

Digital competences were developed by the preparation for the main activity of this Youth Exchange (Poster Fair) and preparation of this booklet. Participants learnt about the possibilities of searching, gathering and processing information (knowledge) and these they critically used for preparation of their work (skill). After this Youth Exchange they have continuously been highly motivated to use digital competences to keep in touch with other participants (attitude).

5. Learning to learn

Learning to learn competence was developed using non-formal methods of learning together with science as the main mean of this process (knowledge). All participants got new experience, knowledge and abilities that they are able to use in everyday life these days (attitude). Participants participated in numerous activities (non-formal and informal education) and thanks to these they learnt a lot that can be used later on (skill).

6. Social and civic competences

Participants coming to this project had basic knowledge about the topic of active citizenship and thanks to this exchange they gained the following: they learnt the basics of active citizenship (knowledge), they created action plans and in their countries they will most likely motivate others to active citizenship (skill) and they will be motivated to defend the concept of active citizenship among their friends (attitude).

7. Cultural awareness and expression

This competence was fulfilled mainly by the Intercultural night where all nations presented their country (knowledge). And also by the activity called Night of Prejudices where each nation performed prejudices concerning a given country (skill). Thanks to this activity all participants realized the absurdity of prejudices and are motivated to fight against them in their communities and in the society (attitude).

9.1. Name games

Name games were introduced at the very first day of this Youth Exchange. After these games, remembering the names was supported by creating the badges saying the person's name.

Aim: to learn names of other participants

Duration: from 10 to 15 minutes

Stick name

Each participant has a sticker on his or her T-shirt. Their task is to find somebody who has the same letter in his or her name and they simply “exchange” this letter by writing it on each other's sticker.

Characteristic move/word/animal

Participants create a circle and say their name together with creating a movement. The next person says also the name together with the movement and repeats the name and movement of the person that was before this person. The last person repeats everything.

Clapping names

The group is sitting on the chairs in a circle. They are clapping their hands twice in the air plus twice on their thighs all together but only one person is speaking. When the hands are clapping on the thighs the speaking person says the name of somebody else who says his or her name while clapping hands in the air. He can continue clapping hands on the thighs and repeating his or her name to make the game more difficult. The change of the name, however, can be done only while clapping on thighs.

9.2. Energizers

During our project energizers were used a lot not only to energize participants in the morning before the beginning of all activities but also during and between individual activities to keep participants' attention, give them some positive energy and create a good spirit of our group.

Aim: to 'awake' participants and prepare them to the next working activities

Duration: from 1 to 10 minutes

Here are some of the energizers we have used.

Three circles

Players are going around a room. As a trainer shows them, they should inconspicuously choose somebody and run three times around him/her.

Evolution

All players start as amoebas (they are moving-waving around a room). When two amoebas meet they play stone-scissors-paper. The one that wins advances to a higher evolutionary level – becomes a fish (all fish are walking and smacking their lips) and finds another person at the same evolutionary level to play stone-scissors-paper. The next evolutionary levels are: a pig, a monkey and a human. A player that loses stays at the same level or goes one level back (as agreed in the beginning of the game). The game ends as soon as one player becomes a human.

Stop, go, jump and clap

Participants move around the room, on Stop they stop, on Go they go etc. The game is then reversed: Go mean stop, Stop means go, Jump means clap and Clap means jump.

One, two, three – counting in pairs

This energizer is played in pairs. Each pair counts to three on a rota basis – person A says ‘one’, person B says ‘two’ and again person A says ‘three’, person B ‘one’ etc. Later on it goes more difficult: instead of ‘one’ person squats, ‘two’ is replaced by a jump and ‘three’ by a clap of hands.

Princesses, dragons and knights

There are two groups of players standing in a row two meters from a line that is between them. Each group agrees silently on one character (princess, dragon or knight). Organiser counts to three, on ‘three’ groups start to impersonate their character: a princess shakes and calls ‘wiwiwiwi’ with high-pitched voice; a knight is raising his hand to strike and dragon is shouting. At the same time participants must catch players from the second group: a knight catches dragon, dragon catches a

princess and princess catches a knight. When caught, person goes joins the other group. The game ends as all players from one group are caught.

9.3. Team-building activities

Team-building activities were used during the whole project to connect the participants as much as possible.

4 zones

Aim: to relax, to use the creativity of participants and learn something new about other participants

Duration: 1 hour (or more)

Method: brainstorming, discussion

Technique: badges, colourful papers, colourful pencils, scissors

Key competences: communication in foreign languages, cultural awareness and expression

Participants are divided into four groups and visit different areas. The first one is called “creative zone” where they create their original envelopes (drawing, using pens, pencils, using scissors) for the game Secret friend. The second one “relax” is a relaxing and calming one. The third one “talking” is for getting the participants closer by talking to each other. The fourth zone called “badges” is also a creative one while all the participants are creating their own badges with their names on it and they will use them during the whole project.

Turn the paper

Aim: to create a good team by the good communication

Duration: approx. 15 minutes

Method: teambuilding

Key competences: communication in foreign languages

There is a bigger paper on the floor and a smaller group of five people stands on it. Their task is to turn this paper over without a single person standing on the floor. To make this task more difficult, verbal communication can be forbidden.

Be unique/something in common

Aim: get to know each other better

Duration: approx. 45 minutes (6 groups of 5 persons)

Method: icebreaker, self-reflection

Technique: flip-chart, colourful pencils

Key competences: communication in foreign languages, cultural awareness and expression

Participants create groups of five. There is a flipchart paper in each group divided into six parts. Each group has 15 minutes to find out what they have in common (what do they like, what they can do) and also what makes them unique. They write everything on the paper and later on they present their posters.

Night game

Aim: to break the barriers between participants, to increase team work

Duration: approx. 2 hours

Method: icebreaker

Technique: night environment outside

Key competences: communication in foreign languages

Three international teams were created which were looking for individual stands where they were doing some tasks. These tasks were: doing tangrams, face painting, composing a song and deciphering the text. These tasks were achievable only if the whole team worked together. At the end, there was a reflection with each group individually.

Intercultural evening

Aim: to create a good team, to learn something about other countries

Duration: approx. 2 hours

Method: presentation

Technique: music, dancing, singing

Key competences: communication in foreign languages, cultural awareness and expression

This activity is in national groups. Each national group prepares their typical historical facts, interesting things about their country, dances, music and food with drinks as well. During a short presentation everybody from the national group presents a part of it.

9.4. Other activities

Expectations, desires, fears and contributions plus a characteristic sign

Aim: to learn expectations, desires, fears and contributions of the participants so that organizers can work with these results, which can be analysed at the end of the project

Duration: approx. 15 minutes

Method: self-reflection

Technique: chromosome picture, colourful pens

Key competences: communication in foreign languages

Using chromosomes as an empty template, everybody is writing expectations, desires, fears and contributions into four chromatids of the chromosome. Moreover, to the middle of the chromosome – to the centromere, they draw the special sign that is typical for them. At the end of the project everybody goes through these expectations, desires, fears and contributions again.

Secret friend

Aim: to get the participants involved in this game for the duration of the whole project, to keep them in a secret spirit

Duration: during the whole project

Key competences: communication in foreign languages

Secret friend is a game that is played throughout the entire duration of the project. Everybody picks up a name and for this person he or she will become the secret friend. The main aim of this game is to make your

secret friend happy by sending him or her nice messages, small presents and talking to him or her in a very nice way.

Mission impossible

Aim: to learn something about the place of the youth exchange

Duration: approx. 2 hours

Method: Teambuilding

Technique: looking for organizers, following the maps

Key competences: communication in foreign languages, cultural awareness and expression

Participants are divided into international teams and their task is in limited time (60 minutes) to fulfil as many impossible tasks as they can imagine.

Night of prejudices

Aim: to realize the absurdity of prejudices and remove them from society

Duration: approx. 1 hour

Method: theatre

Technique: costumes, music, dance, etc.

Key competences: communication in foreign languages, cultural awareness and expression

In this activity, participants are in national groups and they pick up one of the nations that is present in the Youth Exchange. Their task is to perform a short play containing the prejudices towards the given country. After every play, the discussion follows leading participants to

the conclusion that they should erase prejudices from their life as they are not based on facts.

Genetically modified organisms (GMO)

Aim: to teach participants basic facts about GMO

Duration: 2 hours

Method: presentation, discussion

Technique: flip-chart, post-its, power-point presentation, videos

Key competences: communication in foreign languages, mathematical competence and basic competences in science and technology, learning to learn

In the first part of this activity participants are divided into five groups drawing their mental image of GMO. The second part is for organizers explaining the importance, risks and advantages of GMO. This leads to the third part, in which participants work individually and write pros and cons on the post-its and stick them on the flip-chart. The fourth part of this activity is a moderated discussion using the pros and cons on the flip-chart. In the last part of this activity, participants are back in their original five groups, in which they create their own GMO from materials provided (potatoes, carrots, onion, etc.) accompanied by discussion.

Moderated debate

Aim: to introduce the basic bioethical topics and provoke critical thinking in participants together with group work

Duration: approx. 1 hour

Method: debate

Technique: flip-chart, post-its

Key competences: communication in foreign languages, mathematical competence and basic competences in science and technology, learning to learn

Three bioethic topics are selected (eg. euthanasia, *in vitro* fertilization, GMO, cloning, etc.). All participants are divided into six groups. Each group picks up one topic as well as whether the group is for or against this topic. All groups have 20 minutes to prepare their arguments. Later on, they debate with their rival group (for vs. against). The organizers moderate this debate and write down arguments of both groups on flip-chart.

Genetic code

Aim: to introduce a genetic topic

Duration: approx. 1 hour

Method: lecture, presentation, discussion

Technique: colourful pieces of genetic code, videos, songs

Key competences: communication in foreign languages, mathematical competence and basic competences in science and technology, learning to learn

First, the basis of the genetic code is explained to the participants. However, mainly it is up to them to learn to decipher the code through this activity. Each group gets the triplets they use for translation in amino acids. However, the genetic code here is different and each amino acid encodes in a special letter. Participants in this way decode a surname of a famous scientist. Once all the groups are ready they discuss the names of the scientists and name their contributions to science.

Baby-styling

Aim: to introduce the importance of ethics in pregnancy and differences between people

Duration: approx. 2 hours

Method: discussion, role-play, simulation

Technique: a lot of movement, genetic cards of the baby, big dice

Key competences: communication in foreign languages, mathematical competence and basic competences in science and technology, learning to learn

This activity reflects gene therapy and its possible future opportunities of giving specific look and characteristic to your own baby. At the beginning of this activity, a pair throws the dice until they get the number six. If they do not get six, they have to run a lap in a given route together holding each other's hands. Once they get number six that means they got pregnant and they visit the company Family Genomics s.r.o. to pick up their genetic card of their embryo. In this card there are the initial parameters of their child. From now on, they can visit specific laboratories/stations (e.g. Laboratory of sexual divergence, Laboratory of pathogenesis, etc.) and they can change parameters of their child. In each laboratory they get a modification coupon and with it they go to the company where they change the details. This modification can last only for the first month of pregnancy (1 hour).

The discussion after this activity is very important and it mainly includes pros and cons of genetic engineering and personal opinions on the possibility of changing the characteristics of your own babies.

How do the blind and handicapped people feel?

Aim: to raise awareness and feelings in participants about blind and handicapped people and let them think about integration

Duration: the set of activities for the whole day

Method: discussion, role-play, simulation

Technique: scarfs, wheel-chairs, hand-bike, tandem bicycle, gym equipment, white sticks, etc.

Key competences: communication in foreign languages, learning to learn, social and civic competences

This set of activities enables the participants to experience how the blind and handicapped people feel. At first, they are in pairs and one person has his or her eyes covered and listens to instructions of the other person. Secondly, they work also in pairs and the blind-folded person has to overcome several obstacles that are prepared in the gym. Thirdly, participants work in groups of five people and they try to lead the blind-folded person to find to ball of right colour. Fourthly, everybody tries to move on the wheelchair in the gym and simple games on wheelchairs are introduced. The last activity is held outside. Participants are in pairs again and one of them is blind-folded again and tries to move outside with a white stick. Wheel-chairs, a hand-bike and a tandem bicycle are provided and participants can experience how the movement feels like for the blind and handicapped people.

All of these activities are accompanied by the discussion and reflection because of psychological demands of these activities.

Can you do it?

Aim: to get the participants involved in creating the programme, let them think about integration of blind and handicapped people

Duration: approx. 1 hour

Method: self-reflection, simulation

Technique: gym equipment, wheel-chairs, white sticks, etc.

Key competences: communication in foreign languages, learning to learn, social and civic competences

This activity reflects the previous set of activities. Participants in a group of six people have some time to prepare activities in which blind and handicapped people are included and they have to perform them in the gym with other participants.

Poster fair

Aim: to let participants use their creativity, creative thinking, to improve their presentation skills, participants learn from each other

Duration: approx. 2 hours

Method: brainstorming, discussion, presentation

Technique: flip-chart papers, printed material, colourful pencils, etc.

Key competences: communication in foreign languages, mathematical competence and basic competences in science and technology, digital competences, learning to learn

Poster fair represents the main activity of this Youth Exchange. It is a time-consuming activity which starts by creating groups of three people and choosing the topic of their poster. During several sessions they prepare their posters using their imagination, creativity, internet-

sources and their own knowledge. In the last part of this activity, each group presents their posters and answers the questions of other participants and invited guests.

Active citizenship

Aim: to teach the participants about active citizenship, think about problems in their country and create an action plan

Duration: approx. 4 hours

Method: brainstorming, discussion, lecture, self-reflection

Technique: flip-chart, post-its, etc.

Key competences: communication in foreign languages, learning to learn, social and civic competences

After an introduction and brainstorming about what is active citizenship, participants then have a discussion in international groups. Participants try to find out if any topic or problems of active citizenship are common for all the countries. The next part of this activity is in national groups where everybody chooses one problem of their nation and tries to create an action plan that can be applied after their arrival home. That means that the action plan involves the actions that they as individuals can do. Action plans of individual nations are presented later accompanied by discussion.

10. Posters

Active Citizenship & Social Cohesion

Authors: Ineke Bom, Marly Kammerer, Wijcher Van Dijk

ACTIVE CITIZENSHIP & SOCIAL COHESION

What's that ?
Connect social identities
Establish shared identity within community

Track I → Government subsidies and committees, grand scale and impersonal, found to be largely ineffective

Track II → Organisations with social projects that operate externally from subject communities

Track III → Projects that involve internal (local) actors that influence communities from within...

Grassroots: Bottom up approach

Community Development

Community development is "the process of organizing and/or supporting community groups in their identification of important concerns and issues, and in their ability to plan and implement strategies to mitigate their concerns and resolve their issues" (Labonte, 2007, p. 90).

Approach

Community development approach responds to community-identified needs, building local resources and capacities and self-sustaining programs that foster change within the community and potentially beyond (Laverack & Labonte, 2006).

Ingredients:

- Finding mutual goals
- Connecting actors within the community
- Making partnerships
- Sharing knowledge
- Capacity building
- Empowerment
- Using motivational interview techniques to contribute to the empowerment of citizen within the community

Rôles

- Facilitator
- Mediator
- Coach

To bring people together to contribute to the empowerment of all actors involved and to enable citizens within the community



Brain in a Jar

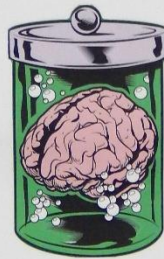
Authors: Antonella Paladin, Michal Havelka, Karlo Brunović

BRAIN IN A JAR

WHY?

- life extension
- experiencing diverse lives
- choosing different life paths through memories as checkpoints

- Who?
- patient zero
 - rich people
 - curious people



HOW?

- life-sustaining liquid
- neuronal connection to a supercomputer
- providing electrical impulses substituting reality
- perfectly normal conscious experiences
- research team: neuroscientists, programmers, mathematicians, physicians

ETHICS

- Should we choose simulation over real life?
- Are we willing to limit the evolution of humanity?
- Who would run the machine if everyone plugs in?

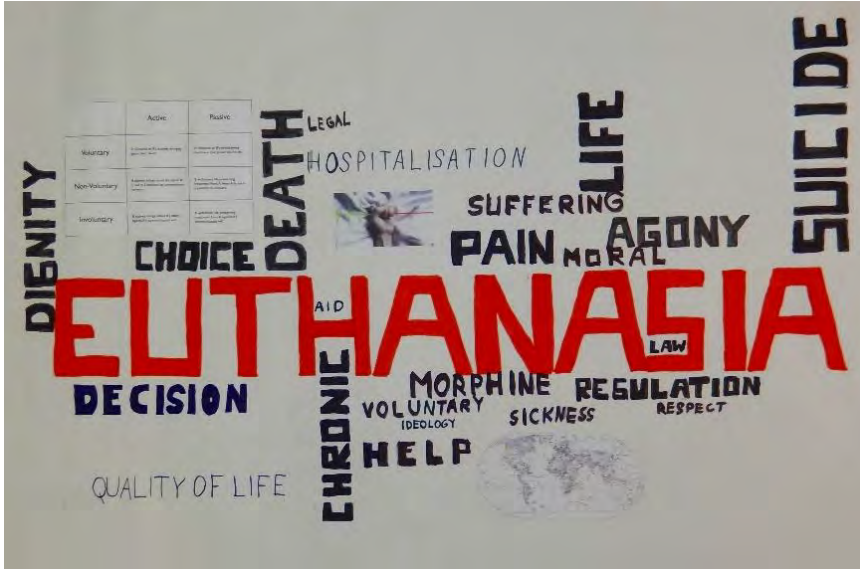
SOURCES

- HUMAN BRAIN PROJECT
- BRAIN INITIATIVE
- EXPERIENCE MACHINE
- NEUROBOTS CO
- SIMULATED REALITY
- ARTIFICIAL REALITY



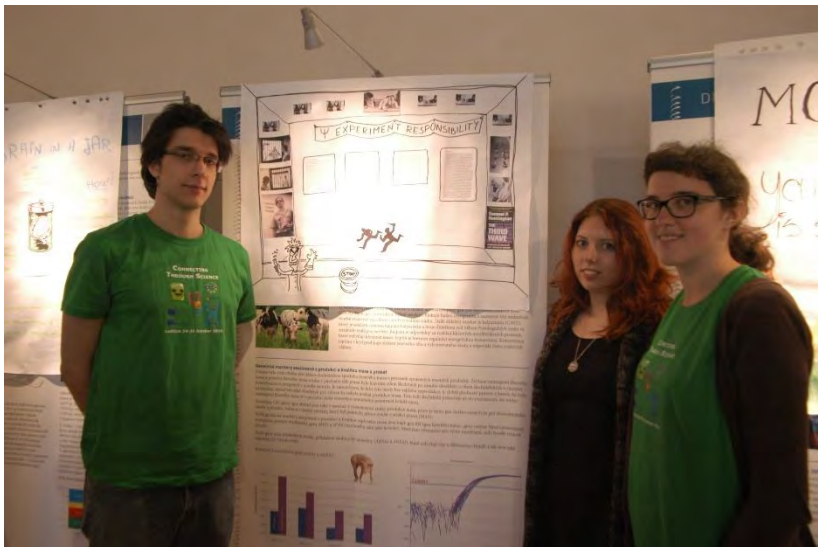
Euthanasia

Authors: Dávid Drexler, Laura Lukáčová, Liisa Uutsalu



Psychological Experiment Responsibility:

Authors: Maruša Pangeršič, Ema Karo, Uroš Ribič



Meat the Future

Authors: Severina Siter, Selma Karahasanović, Jan Vacek, Lora Savin


MEAT The FUTURE

In vitro meat is animal flesh grown through cloned and cultured cells/muscle tissue in a lab. Although meat is still very popular consumers have expressed growing concern over some consequences of meat consumption and production.

PRODUCTION: the process of developing in vitro meat involves taking stem cells taken from live animals and applying growth factors to promote tissue growth. The meat is then cultured in a bioreactor. It is produced as strips of muscle fibre which are then combined together to form a steak.


PROS:

- REDUCES THE RISK OF ANIMAL CRUELTY
- ENVIRONMENTAL IMPACT: REDUCES WASTE, REQUIRES LESS REAL ESTATE
- REQUIRES LESS FOOD INPUT (GROWING MUSCLES, NOT THE WHOLE ANIMAL WITH BONES & BLOOD)
- HEALTHIER: less fat, full of nutrients, no disease outbreaks like swine flu, mad-cow disease etc.
- PREVENTS CLIMATE CHANGE



CONS:

- EXPENSIVE TO PRODUCE
- REQUIRES ENORMOUS CAPITAL INVESTMENT FOR RESEARCH & DEVELOPMENT
- CONCERNS IT MIGHT BE UNNATURAL
- PEOPLE MIGHT BE RELUCTANT BECAUSE IT'S NEW





Monsanto

Authors: Karolina Kuusik, Piret Sommer, Youri Alexandrovic Vakoulsky



Science – My Eyes & Ears

Authors: Paula Krilčić, Petra Papierníková, Lada Jovović



Spinal Cord Injuries

Authors: Marko Pira, Kristina Tammes, Zuzana Ďurianová

SPINAL CORD INJURIES

THORACIC NERVES
Chest muscles
Abdominal muscles

CERVICAL NERVES
Head and neck
Diaphragm
Deltoids, biceps
Wrist extensors
Triceps
Hand

LUMBAR NERVES
Leg muscles

SACRAL NERVES
Bowel, Bladder
Sexual function

CAUSES

TRAUMATIC	NON-TRAUMATIC
<ul style="list-style-type: none">• motor vehicle accidents• sport accidents• falls• violence• diving into shallow water	<ul style="list-style-type: none">• cancer osteoporosis• multiple sclerosis• inflammation of the spinal cord• arthritis



11. Blog and Reflexion Fairy-tales

This chapter concentrates on the week of Connecting through Science with the eyes of organizers (blog) and participants (Fairy tales) from Sunday till Wednesday.

Blog

You can easily find and read our blog on this website:

<http://connectingthroughscience.blogspot.cz/>

Reflection fairy tales

Saturday

Once upon a time in a distant land, the Great Wizard Ondra gathered all the creatures of the magical forest. All the animals were excited to meet one another. The forest was very big so the deer had heard about bear and bear had heard about squirrels and the ferrets heard about foxes – but they rarely had ever met.

The great wizard Ondra wanted to connect all these special creatures through WISDOM and thought of some games for the creatures to play together so that they would come to know each other as well as their specific traits and talents.

The deer could run very quickly, and squirrels could climb to the top of the trees – everyone had his or her own skill that they could use for the tasks the Great Wizard Ondra had set for them.

The tasks seemed impossible, but in the end with their powers combined, the creatures of the forest completed them. And so to celebrate their success, the creatures decided to hold a feast the same evening. Everyone brought some of what they liked the best: the squirrels brought nuts, the deer brought berries and cherries, the bear

brought honey and fish so the great feast was prepared by all the creatures together and they were very glad to come to know each other.

The Great Wizard Ondra was very pleased and rejoiced to see such solidarity and brotherhood among the creatures of the magic forest. And they all lived together, very happily, after.

Sunday

Once upon a time in a faraway land of Lednice lived a beautiful fair skinned Princess with long blond hair. She lived in an old Chateau that was surrounded by a huge park near a pond. She walked through the park, talking to birds and fish, observing the wonders of nature. But she was all alone. Suddenly she spotted a beautiful golden flower that grew just next to one of the statues in the park. While she was admiring its beauty, suddenly an idea made her heart tremble with excitement.

There were many flowers just like the one she was holding in her hand and she thought how nice it would be if she had some friends to play with who would be just like her. Amazed with the idea she started to think about how to do it. Was it even possible? What would happen? Would it be a right thing to do? And would this friend that she would create from herself be exactly like she was?

She was not sure how to do it so she went to the pond to talk to her fish friend and as she leaned over the water she saw her own reflection just as if she looked in the mirror. All of a sudden there appeared a little creature and another one and another one. Out of the water came 32 creatures that resembled her in many ways.

They lived for a long time and they were happy together. Every day they thought about little details like being on time and listening to her talk and explaining the rules of her games.

They loved her very much and she really loved them in return.

Monday

Once upon a time there was a fish called Fridge. It lived in an underwater Chateau located in a beautiful lake and had many friends. One day the little fish wanted to have a family because it was sad – all the empty rooms of the big castle.

One nice afternoon she met a great red shark who was drop-dead-gorgeous. Soon after they fell in love. They decided to share their DNA and had many beautiful baby fish. They also decided to enhance their babies so every each of them would be different and special in a certain way.

They had a holiday in a minaret and enjoyed a mosquito picnic. In the evening they went to the theatre and made fun of all of the other fish.

Their DNA is still swimming happily today.

Bubble, bubble.

Tuesday

Once upon a time there lived a boy. He was not just average boy, he was actually a very special boy. He did not want candy, he did not want to play because this special boy wanted to be blind a day.

On this very special day to achieve what he wanted, he found a way. To Lednice he went – it is a kind of a magical land with the Chateau and he rubbed there the magical toe. Darkness descended and his vision was ended. To his surprise, being blind is actually not that nice. From this point he knew what handicapped people go through!

He started to cry, asking the magical toe why. He got his eyes mended and that is how his blindness was ended.

For the rest of his days with his blind friend he was playing all his free time.

Wednesday

Once upon a time there were 33 little hobits. They went on an adventure to Brno to spread and share their wisdom. After their long journey they went to the palace of Brno and they visited the king. The king was really kind and he welcomed them with presents.

After this experience they visited the place where the life started (Mendelianum). In this place they discussed their pieces of work they had created and had amazing times together!

As this was not only fun but also a demanding task, they needed to refill their energy again. At the end they decided to visit their old friend Eagle that wined and dined them generously in its nest.