

Pappus

Plants and Play Promoting Universal Skills

National Adaption Plan

Field Research

(Hungary)

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Author(s)	Dóra Vera Halász, Virág Suhajda, Zsuzsa Vastag
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National Adaption Plan – An Overview

Aim of the National Adaption Plan (NAP)

Pappus will explore and bring together an innovative approach through plants and play that develops skills and enthusiasm for the natural world, horticulture and botany in both school practice and informal youth learning settings.

This will be reached by the help of two main project results: a toolkit and an online training course. The basis for the development of these products is formed by a National Adaptation Plan.

Research methodology

This National Adaption Plans will be informed by diverse sources of information collated by both desk and field-based approaches. Approaches and sources will include:

- Initial desk research to establish an overview and understanding of the following: governmental framework, target groups, challenges and barriers to engagement; typical beneficiaries and effective ways to approach them.
- The desk-based research will drive relevant field research to be carried out in each partner country. This will be a minimum of 10 interviews with a semi-structured questionnaire on a one to one basis or if preferred, through focus groups to discuss the issues and possible implementation of the two products in partner countries.
- In March 2020, there will be a study visit to UK, to learn from the rich and comprehensive experience in the UK and to reflect, refine and enrich prior research through concrete observations.
- Finally, all partner countries will develop National Adaption Plans to specify their respective strategy to reach the aims of the project and discuss them with relevant stakeholders in various Multiplier Events.

Research Findings

As a final result of all desk and field research, we will formulate our National Adaption Plans, which should be used as strategy papers for our National Project Implementations. These will include key findings (about e.g. challenges and barriers to engagement of Youth, Teacher, Youth Workers and others and overview of existing on-line tools and digital technologies in this field).



Interview Guidelines

1.) Database and Methodology

We decided to apply a very flexible research design, so that all project partners have the possibility to use best fitting methodology within their own framework and with their own resources. So, partners can carry out interviews (oral or telephone) or focus groups.

The only specification you must be aware, that the database includes at least 10 persons for each country. We suggest interviewing different involved stakeholders (such as youth workers, (head)teacher, experts and students. In short, you should talk to relevant persons concerning bringing the natural world in school practice and/or informal youth learning settings, depending on your chosen framework for your country.

Interviews / focus groups should be recorded, or the interviewer takes notes to summarize main statements.

Please be aware, that in any case a written consent of all interviewees must be kept by each partner. In case of interviewing minors (under 18 years old), written consent of interviewee and parent is needed! We did provide you with a template for that.

2.) Aim of the field research

The main aim of the field research is to come into contact with relevant target groups and beneficiaries of the project and to validate the prior findings from the desk research from the perspective of youth workers, teachers, experts and students.

We will identify “use cases” from our interviewees to learn, how our interviewees approach the challenge to develop enthusiasm for play and the natural world, horticulture and botany in both school practice and informal youth learning settings. (or – if you interview pupils, how they got inspired).

A use case typically is a list of actions and tools defining the interaction between a role (e.g. teacher) and a system (e.g. school) to achieve a goal (to inspire children for nature).

Use case analysis is an important and valuable requirement analysis technique that has been widely used in modern software engineering since its formal introduction by Ivar Jacobsen, a Swedish computer scientist, in 1992. Since then, it became quite popular also in the field of social innovations.

3.) Steps

To carry out the interview, we suggest the following steps:

- 1.) Present the project (hand over a short project description)
- 2.) Discuss the main findings of the desk research (by using the executive summary of the field research)
- 3.) Discuss use case from your interviewee (personal experience of interviewees with play and nature approaches in school/youth settings; - which goals do they have? how do they get there? which methods applied? Which tools used?)



- 4.) Identify key messages, hooks and good practices used by interviewees
- 5.) Identify potential co-operators

An interview is expected to take around 20-30 min., a focus group should be around 75-90 min.



1. database

We conducted 2 separate interviews and 4 small focus groups.

FG stands for focus group

IW stands for interview

Type	Interviewee	Gender	Age	Role and other info
FG 1	Interviewee 1	Female	19-35	Landscape architect
FG 1	Interviewee 2	Female	19-35	Landscape architect and graphic designer
FG2	Interviewee 3	Male	36-49	Teacher, psychologist, environmental educator
FG2	Interviewee 4	Male	50+	Important member of the Hungarian Association for Environmental Education and author of several env.edu books and articles
FG2	Interviewee 5	Female	50+	Member of the Hungarian Association for Environmental Education
FG3	Interviewee 6	Female	50+	Plant-ecologist and university teacher
FG3	Interviewee 7	Female	36-49	Responsible for several zoopedagogy project in the Budapest ZOO
IW1	Interviewee 8	Female	36-49	Horticulture teacher at a Waldorf school in Budapest
IW2	Interviewee 9	Female	19-35	An agronomist and the owner of their family ranch. She also teaches horticulture at a Waldorf school
FG4	Interviewee 10	Female	36-49	Garden designer and architect
FG4	Interviewee 11	Male	50+	Garden designer and architect



2. Research Method

Most of our interviews we had to conduct via skype due to the special circumstances caused by the COVID-19 pandemic. One focus group we could hold in person and the other nine interviews we conducted via skype or telephone. In total we reached 11 persons for that we held 4 meetings – 3 online and one personal meeting and we conducted 2 online interviews.

Our method was the following:

After an introduction to the PaPPUS project and a brief introduction to Rogers Foundation when needed, we invited our interviewees to a short voyage to their childhood... They remembered and relived their relation to nature and plants and we were just listening and let them talk for a couple of minutes. Our focus groups were build up of 2 or 3 interviewees so it didn't take too much time to listen to each other.

Then we “came back” and tried to find out how this relation was formed from childhood to present and based on that, what they think would be interesting to the children in relation to plants and nature.

How they would like to connect to nature. What kind of activities they would like to do and what are the hooks and what specific activities they – as experts - could offer to them. If they had own practice or experience in the field they talked about that as well.

We asked them about their practice if they had any and their ideas about concrete activities that we can include or tailor for the toolkit.

Since two of our interviewees were active landscape designers who are busy with harmonizing nature and built environment in town, we had the opportunity to talk more thoroughly about the environmental side. May it be man-made or a natural setting or a combination of the two.

With our playful approach and our firm belief in free play we tried to find activities that are not only playful but are actually played inside nature, done with strong connection with plants in a way that the plants are not so much subjects, but rather substantial parts of the child's activity.

3. Key findings from field research

3.1. Executive summary

The interviewees themselves and we as listeners found that connection to nature in the very early childhood was the main point that almost all the persons we asked, mentioned in the first place. All of them had the possibility to play in nature and among plants in their



childhood even those who lived in the town have memories of climbing trees in the parks or blowing pappus found among the grass.

Playing in nature, aimlessly puttering with plants, slowing down, wandering around... the kind of activities that can hardly be transmitted with direct actions. Our approach is to first create an environment and an ambience where the connection with nature and plants can happen. If children and young are in nature, spend time among plants doing anything they like it is already a success. No matter if they run, read, play, walk or being busy with their phones, the most important thing that they are outdoors. The second thing is to introduce specific activities with plants and make this connection to plants even stronger. We try to find the balance between free play/existence in nature and playful activities related to plants.

Key messages in order to reach the above mentioned aims are the following:

- We have to **provide opportunity** to be in nature and among plants – with particular regard to the environment that surrounds us every day
We interviewed two landscape architects who are very active in the field of designing places for children that harmonize green spaces with built environment. They have several practices for making children more conscious to both their natural and built environment.
- One of the most important things is to have an **authentic and heartfelt relation to nature** – as our attitude is transferred to the students no matter if we want it or not. If the teacher is enthusiastic about nature and plants the students will get closer to it as well
- The chance for **free exploration** is crucial. Let the children watch the plants. Don't teach every moment it's not necessary that they know every scientific detail of a certain plant. Maybe it is enough to admire it. Not everyone is interested in the scientific approach. Don't discourage them. It is too easy to distance children and young people from nature if we push. It's not worth risking.
- To provide **exciting, inspiring** but not overwhelming set of activities **tailored** for different age groups. Sometimes the less is more. We don't have to teach everything. Biology or nature teachers do that anyway. Our aim is to transmit an attitude to nature and plants, so that children and young people feel them close to themselves.
- Early and regular connection with nature is very important, but no one is lost, there isn't a child who cannot get a bit closer to nature if we **approach him/her in a good way**. Love, patience and empathy towards nature and towards the kids we want to reach are very important if we want them to feel the in nature.
- It is advantageous if children can follow **whole processes** so that they have a picture how a plant is formed until it eventually consumed – in the case of eatable plants. This strengthens their connection to nature.
- For nature and plant related activities we usually need **minimum of 1.5 hours**. We have to take it into consideration when planning lessons and activities.
- We have to take into account that the alienation from nature is often comes from a **fear** from nature a fear from the unknown. This fear is usually not rational and is exaggerated but still we have to deal with it in an empathetic way in order to reduce it.



- We must mention the concept of ***nature deficit disorder*** – used in ecopsychology, which is a serious phenomenon of our ages, especially in big towns and metropolises. The scientifically proven existence of nature deficit disorder – which is registered in DSM-5 as well – gives outstanding relevance for the ***PaPPUS project***.

3.2. User cases from interviewees

Short summaries of the interviewees thoughts are presented below (sequentially according to the database)

1) Focus Group 1 - Interviewee 1 - Landscape architect

Personal experiences with nature:

Her first memories are the excursions with her parents. She grew up in the suburbs of Budapest. One of her favourites was the walks at Easter, when their parents hid the chocolate eggs in the forest and they were trying to find them. She can relive the memory of the elastic-like ground they are running on...

They had their own garden, so she had the opportunity of climbing trees and did a lot of work in the garden. They had long bike rides and longer hikes as well.

When talking about her memories Anna used very suggestive images, full of colours, smells and the sense of touching. As she remembers she always kept the connection with nature, even in her teen ages.

She thinks that the teenage is a perfect age for exploring nature. Teenagers need exciting places, but also ones that provides hiding possibility and places for intimacy. So she would design places that are suitable for young people to spend time at. She uses the method of urban planning for that. From the side of pedagogy she would combine free play and playful activities. They have several board games also that aim to introduce urban planning to children and young people.

A key message from Anna, is ***providing opportunity***. This is in line with the free play approach which is to say that we build the framework – in this case provide the optimal natural environment – and children will find their way to nature and plants. We have to form playable spaces, with discovering what kind of activities children like to do in nature, what kind of paths they like to follow (for example on a school ground) and we accommodate the activities we find out to the children's habits and needs.

2) Focus Group 1- Interviewee 2 - landscape architect and designer

She grew up in a typical city environment. Block of flats with small park-like green spaces in between. She believes that it was a very good place for children. They often played in those green spaces. She never felt that she would be separated from nature. The summer they usually spent in the countryside at the grandparents. The small village was a very different environment. They had symbiotic relation with nature there. She also got familiar with plant production and domesticated animals.



They both think about spaces as a **combination of natural and man-made environment**. This attitude lets them incorporate nature into city-life which is a very important aspect for landscape design and also a very important aspect to our project.

3) Focus Group 2 - Interviewee 3 – environmental educator

He claims that he has only a few memories from childhood. He has a very fundamental relation with nature. For him nature means tranquillity, stress-release, and slowing down. Being among plants with no further reason or purpose already brings this sensation for him. He maintains that **physical connection with nature on a daily basis** is necessary not to alienate from nature. It is hard to connect if we go to nature very rarely.

But, as a psychologist and a natural educator he says: *“there isn’t a hopeless case. Every child can be caught by something”* we just need to find the way.

For the question how to approach children and young he highlights the importance of **free exploration** as the most important way of environmental education. If we include some excitement into our walks in nature it’ll help keep the children.

He has a very specific exercise during teacher training: When they going to the field the students get the exercise to count how many type of plants they see during their walk. They usually find many more than the expected.

His method is:

- Start with very simple very small things
- Never push. It will have the opposite result
- Let the students/children have as much free exploration as possible

4) Focus Group 2 - Interviewee 4 – environmental educator

Erika remembers playing in their garden with her brothers. They often made brews of plants as it was fun and were playing freely in nature. They were also taken to excursions and longer trips with tent. She had a lot of experiences. She admits that for children there is no difference between useful and useless plants. For them a nice weed has the same value as an expensive flower.

According to her the most important characteristic of a good teacher is the **enthusiasm**, the **personal bond to nature**.

She also recommends **connecting** the exploration of **nature with different fields of art**, like poetry or painting

5) Focus Group 2 - Interviewee 5 – one of the founders of the Hungarian Association for Environmental Education

He grew up among trees and had to opportunity to spend his days in a garden that had no caretaker and therefore was rather wild and was a perfect place for a child to play in. He thinks that these are the roots of his botanical interest.



He claims that the best practice is just to go and go and go... into nature... into a park, to a meadow... wherever we find nature or the traces of nature... He also thinks it is important to make ourselves realize that nature presents itself everywhere. Even between the cracks of the pavement – if someone is going to a school in a city environment – there are many spaces and the possibility for exploration is there.

It is a great advantage if someone had the chance to connect to nature in his/her childhood. And it is also very normal that teenagers often drift apart from caring for nature. We should let them go, not force them too much and trust that one who had the connection in childhood will reconnect later.

We spoke about the concept of ***nature deficit disorder***. Which was elaborated more in the executive summary

6) Focus Group 3 – Interviewee 6 – Plant-ecologist and university teacher

Her admiration for plants originates from her early-childhood. *“One of my first memories – she said – was a dream, where I myself was a beautiful flower, an evening-primrose”* She remembers playing with plants, always touching small flowers, even on the playground. She talks about her affection to smaller plants and claims that trees are too large for her, she “understands” small ones better.

When talking about how to present nature and plants for children and young people she recommends that we ***lighten the similarities between flora and men***.

Cooperation is much more important among plants and plant populations than we would think. They exchange information and nutrition; they transport nutrients below the ground. They free up spaces for each other when needed and so on...

We can also highlight the ***role of plants in our life***.

7) Focus Group 3 - Interviewee 7 – Project manager and zoo-pedagogue at Budapest ZOO

As a child she was more interested in the life of animals than plants. From the plant world she can recall good and bad smells, the greenness of the wild. She cannot tell if it is related to one specific plant. Plants for her, usually means the woods. She prefers the wild to the human made gardens and parks. Running (orienteering) in the forest is an important activity for her that connects man and nature.

As an example for interesting and exciting connection to plants and nature she tells about the [Eden project](#) in the UK. Among other impressive exhibitions there is one where we can see how our environment would change if, step by step we pull out everything that contains or made fully or partially from plants. At the very end we can hardly see anything around us. These kinds of ***spectacular experiments*** can draw our – or the children’s and youth’s attention to the essential role of plants in our life.



8) One-to-one interview 1 – Interviewee 8 – Waldorf schoolteacher in Budapest

Waldorf schools have a very different curricula from public schools, which is also pronounced in the case of nature related subjects. This is a fact that we have to take into account when we would like to take from the Waldorf-method.

Anna teaches horticulture in a Budapest Waldorf school. She can hardly remember specific things from her childhood, what she remembers that she had very many impulses, she spent a lot of time in the garden, observing plants and animals.

She spoke about hooks by different ages (*they are listed in the section of hooks and key messages*)

She recounts several exercises the use in the school and activities that can be done by the children. (*These are listed in the toolkit section and in the good practices section*)

She maintains that we always must have a “plan B” in case it is impossible to go outside due to the weather conditions

A message that she outlines that the relation to nature – they think – the following are important when playing and working in and with nature:

Slowing down – stamina – self-discipline – will

9) One-to-one interview 2 – Interviewee 9 – An agronomist, owner of a family ranch and part-time teacher at a Waldorf school

Renata and her husband have their own family farm in South Hungary that they run according to permaculture. This has three main principles: protect men, protect nature, protect human relations. She has a different history than most of our interviewee. She told that she had grown up in an environment where she hardly had the opportunity to play and she still feels the drawbacks of this childhood. She raises her children in freedom and in close contact with nature.

She gives horticulture lessons in a Waldorf school in their vicinity. She claims that 1,5 hours for such a lesson is too short (this was mentioned by the other horticulture teacher as well). After all, they can do a lot of interesting activities. – *most of these are listed in the Toolkit and in the Good practices section.*

About relating to nature she highlighted the followings:

Observation – this is very important and can be done almost anywhere. What kind of flowers are blossoming, how they look like, what kind of differences we can find on the level of species. Structures of flowers, etc. These kind of observations are usually good activities for the older students as well.

Here and now – to be where we are. Getting out of the virtual world and arriving into the present. *“The enthusiasm of the teacher is an essential thing. This is what is actually transferred this is what makes the impression.”* – she claims.



Children enjoy walking. We can walk down the same path in each season and observe how the nature changes around us. We can connect with folkways which are actually related to seasonal changes.

Renata has already set out the idea of a **board game** about conscious agriculture, and she is seeking for partners for the realization. **We were talking about a possible collaboration in the frame of the PaPPUS project.**

10) Focus Group 4 – Interviewee 10 and 11 – Landscape and garden engineers

This focus group was the only one we managed to carry out in person. Here I don't separate the words of the interviewees since it was more like a conversation than an interview.

On this occasion we did not talk about childhood relation to nature, we rather talked about what kind of places we can find, and what kind of plant-related activities the students can do particularly in Budapest.

We found that it is a good idea to organize **season-specific walks** to the green places of the town. There are particular places that are worth visiting depending on the season. For example early spring: the Gellért hill is full of bulbous plants, in late spring and early summer it is worth going to Margaret Island where we can find examples to the harmony of natural and man-made environment, for example in the small Japanese garden. The peninsula of Kopaszi-gát is an example of the combination of man-made and natural environment, a model of the contemporary landscape design.

As long as the activities are concerned they recommend to have **exercises that can easily be carried out in nature and that are fun** to do and make the impression that nature is a good place to be in. For example one could think that collection of garbage is a simple and easily organizable activity for the young, but they warn against starting with that kind of activity, since the students may get the impression that nature is equal to a full of waste place (which is actually not far from reality) and activities in nature are disgusting. These kind of activities can come later.

3.3. Hooks and key messages, identified by interviewees

The hooks which attracted the interviewees themselves in their childhood are presumably similar to the hooks that attract children and young people nowadays. However, the world has changed in the last few decades and we have to be aware that new attractions, like the internet, interactive computer games, videos and other online activities started to play an important role in the children's life.

The interviewees listed general and specific hooks. Some of those are which attracted themselves as children or as adults and some of those they think would attract the children and young in our days.



General hooks – that attract the interviewees themselves, and can be useful in attracting the children and young as well:

- 1) **Beauty.** This is something that is appealing for almost every age group. In every season we find beautiful parts in nature. Sprouts and flowers in spring and summer, colourful leaves in autumn, hoarfrost in winter and so on. If we, ourselves, adults, teachers, playworkers show heart-felt interest for beauty and show beautiful plants to the children, they will share our enthusiasm. This is an experience of several teachers.
- 2) **Playing in nature with nature:** Encouraging free play in nature is one of our main goals. Simply climbing trees, hanging in a hammock and reading – or even watching a film, making fireplace from sticks or a simply be in nature and do our favourite activity is the best we can do for connecting to nature.
- 3) **Special plants:** Some of those can be found naturally, others are present in botanic gardens or orangeries that can be a place to visit for group of students. Carnivore plants, mimicry of plants (e.g. some orchids), etc. Something that is unusual can always count upon some interest.
- 4) **The opportunity of discovering something new and unusual.** One of our interviewees said that in her childhood, the most exciting thing for her was walking in nature, sometimes in places she has never been before and explore new things – not only plants but anything that can be found in a forest. Discovery is an exciting activity anyways. Let's do it in nature!
- 5) **Moving around, doing sports in nature** – this also comes from one of our interviewees who practiced orienteering in her young ages. Although it is not very strictly connected to plants, the trees and other plants are a part of the environment, and anyone running through the bushes or jumping over broken branches will be a part of nature for that period of time.
- 6) **Interesting facts about plants:** Experts can tell interesting stories about plant life. For example the survival strategies of plants, adaptation strategies, the relation between animals and plants, the evolution of plants – so many fields of plant ecology which – if presented in an interesting way – will surely attract the attention even of an “ordinary” child or young person who is not specifically interested in nature
- 7) **Plant gastronomy:** making food or beverages from plants is inspiring for almost all children. Smaller ones can make simple things while older can prepare complete dishes out of what they collect or even of what they produce.
- 8) **Usability:** If we can use a plant for something it can become more interesting for very practical people as well. For example, willow – for making baskets and stuff like that. Celandine (*Chelidonium majus*) for healing skin wart. Or coconut fibre for making slippers or mattresses... and a great variety of usage can be found.

Specific hooks for specific age groups: (experience of horticulture teachers)



- 1) Younger ages: 7-10 years: every kind of physical contact with nature: touching plants, touching the ground, touching soft moss, etc. is interesting. The freer and the more frequent the activity is, the stronger the connection will be.
- 2) Higher classes: 11-12 years: They usually still turn to nature with enthusiasm. They like touching, using their senses. They are grateful if we use much humour when offering activities for them
- 3) 13-14 years: At this age pupils are usually “go crazy”. It is rather difficult to hold their attention. It can be rewarding to give them challenging activities, exercises that are not so easy to complete, that needs active thinking and logic. They also like (maybe rather the girls) doing creative activities with plants. Preparing artistic works is a good idea at this age.
- 4) 14-15 years: Children of this age often seem very lazy – this is normal and happens due to hormonal changes. They need very specific tasks if we want them to do something. They often like physical activities where they can feel their strength and see the result of their work. Another possibility is just let them be in nature not expecting anything. This is another way of connection to nature. This age group is often excited about savagedom. They are open to bushcraft challenges like “spend a day in the wild without any help”

3.4. Good practice, identified by interviewees

There are several ways of connecting to nature and plants. Some good practices that are already in place are listed below

- 1) **Zöld Zugoly program at a Hungarian Art festival**. This is the programme of one of our interviewee regularly on one of our summer festival. In the frame of the program they prepare a “plant-wall” – at the festival terrain - where test-tubes are hung and in small groups they go to the field collect flowers and put one flower of each species in a test-tube... so other festival visitors can take a look at them and explore them as long as they want...
- 2) **Bees for the school program**: there is a Hungarian bee-keeper, who brings his bees to schools in a special beehive made of glass and the children can observe the life of the bees for a week or so. He tries to popularize his program all around Hungary.
- 3) There is a ***family farm that aim at popularizing mushroom eating***. They provide special sacs for hypha and one can follow the whole process from the formation of a mushroom to the point it arrives on the plate
- 4) The **Kulturaktiv Association** aims at ***sensitizing children and young people to the built environment***. According to their vision man-made and natural environment has to be in harmony in towns and they are working for that vision through their projects. They also have projects for rebuilding school yards with this approach.
- 5) The Hungarian ***ecopsychologist***, Zselyke Molnos founder of the **Ecosychology Institute** in Hungary is organizing several programs in nature. One of the programmes is called “**participation walk**” which is a group event through which the participant gets familiar with the flora, fauna, network, and processes of a certain



natural place in an experimental way. These are practically forest-bathes with ecopsychological approach.

- 6) The [School-gardens Foundation](#) together with its partners helps schools with building gardens in their school yards. They provide tools, training and mentoring for the schools during the whole process. The program is supported by the Hungarian Ministry of Agriculture.
- 7) There are several programs in the frame of [forest pedagogy](#) organized by an expert Gyula Dósa, forester, forest pedagogue, who offers the programs for classes, groups and summer camps.

3.5. Toolkit content

Some hints for the toolkit:

It is important to indicate which **age group** we recommend the activity for. There are general ones that are good from the age of 7 to 18, but there can be age specific activities as well.

We should indicate if an activity needs **preparation in advance** from the side of the teacher or the students. Either scientific knowledge of the teacher or a longer preparation before it can be presented to the students

We should indicate if **special clothes** are needed. For example for a long walk in the forest we may need boots and raincoats or for working with spiky plants we need gloves.

Very important to have **alternatives**. Most of the nature and plant related activities are done outdoors but we can always face awful weather conditions when we have to pull out some alternatives from our hat. Some outdoor activities can have indoor pairs.

Specific activities that can be used in the toolkit:

Playful activities and creative stuff

1. We can make **seed ribbon** (several type of seeds are glued on a ribbon – e.g. toilet paper) and **plant** it into the soil. Even small children can do it and it is really exciting when the plants will emerge from the ground. They can follow day by day how their small plant develops
2. We can collect different colourful petals and glue them to a piece of card forming a **nice picture**. Alternatively, it can be done from leaves instead of petals. These kind of exercises are good from ages 6 to 12 or higher, depending on what kind of picture we imagine or what kind of instruction we give
3. After getting to know some plants and herbs, we can collect them together. It is fun to make small bunches and **sell** them on the school market or any kind of festival. We are in connection with nature, while touching the plants, and in the mean time we do



something that is useful and we can even make money – which is a motivating factor for a child between 12-16 years

4. In the wintertime: we can go in the woods trying to **identify plants** from the branches and tigs that remains bold during the winter. For that we can order a handbook that shows the characteristics of plants in the different seasons.
5. Eatable plants are always fun: we can **make tea or juices** from some of the plants. Meanwhile we teach that several plants are poisonous and only a few are edible, and children have to be very careful when choosing a plant
6. **Fiber-plants** like cotton, flax, hemp, jute... of which it is possible to make a net or even sandals. There is a wild range of usage of those kind of plants. There are simpler and more complex things to make from them.
7. **Board games** for fun and for conscious attitude to nature. The idea of a board game came up in more than one case. One of the interviewees who's both an agriculturer and a teacher for a long time plans to develop a farmer-board game, of which she already has the concrete plans. The plant-ecologist interviewee is thinking about a board game that is based on the fight and cope of the plants... Both of the ideas could be realized with some help and be given to teachers to use in their classes.
8. An activity they use in teacher training: When going to the field they get an exercise to count each type of plant until they arrive to the final place. This can be varied for example in a way, that a pupil has a homework to **observe** what kind of plants she/he can find on the way to the school and take **photos**, or small **videos** with comments about those plants. In this way we can involve the activity like using their smart phones which will surely give some motivation
9. We can **collect interesting plant names** that have other meanings as well, or draw attention for the origin of the name (it very often comes from what the used the plant for)
10. We can try to put the same type of plant to **different environments**. For example give more water or less, allow more light or less, and so on. This is something that can be done even in a classroom with two pots of flowers.

3.6. Pappus training

We asked our interviewees what kind of training they would like to participate in and what they think should be part of the training. We summarized the answers.

All of the interviewees would be happy to participate in a training. Most of them could travel abroad for a couple of days . We also asked if an online training would be a good idea, but



they usually think that this kind of activities should be done in person and also that outdoor training activities can be included.

Some of the answers are detailed below

Attila – Any of the mention timeframe is OK for him. What he finds very important to hold a significant part of the training outdoor. If we imagine an online course, it is possible that between two lessons, the participants have to go out of their home and complete specific exercises. Or else they participate in the online lessons via their cell phone from an outdoor place. We can find out activities for both.

Erika could participate in the training course either in Hungary or abroad. She thinks that however an online training is possible and in the current situation very probable but if the outdoor presence is necessary due to the subject of the project so she would go online only if it is really necessary.

Erika offers the possibility to hold the training at the Kőrös-Maros National Park in south-east Hungary: <http://kmpn.nemzetipark.gov.hu/szallashelyek>

Most of our interviewees believe that the online training is not a good choice for this topic.

3.7. Any other ideas / suggestions from interviewees

We learned about two main urbanist approaches to harmonize green spaces and built environment.

- 1) Enlarging and increasing the number of spaces designed for specific purposes like playing (playgrounds for children), walking, relaxing (parks), etc.
- 2) The other approach is to build integrated spaces that can be used by everyone and making these spaces reachable for children. Places that encourage children to play— this is called playscape.

Nature and plants are part of both type of planning, however the latter approach is closer to our view.

It is very important to include the designer approach for structured spaces. We can use thematic spaces that can be formed freely and can provide different kinds of space-experiences. For example we feel different on a tidy lawn or in a naturally grown grass, although both of them are covered by grass.

When forming spaces in urban environment it is important to think about the type of pavement. We can restrict a place for one sport for example or we can open it up for several functions with using different kind of pavements.