EUROPEAN EDUCATIONAL MODEL

SOCIAL PERMACULTURE

THROUGH NON FORMAL LIFELONG LEARNING IN COMMUNITY GARDENS

Erasmus+ project: Growing Communities

Visit our web at: growingcommunities.es

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Introduction

The departure point for this educational model is a joint motivation of three organisations across Europe to exchange their know-hows on learning tools and methods to endeavor two of the biggest challenges of our time: social inclusion and environmental crisis.

Eduplus Association (Spain), Trial and Error (Germany) and Association Dominou (Romania) all have to face these challenges in their daily work, and have different positive experiences of transformation. Exchanging around these experiences is the ground for this model: our intention is that these shared expertise and findings, gathered and condensed in an educational model, can help other organisations, multipliers and facilitators to make a change in their local contexts as well.

The joint observation that gardening and mostly permacultural gardening can have a positive impact not only on the environment but also on people and the way they live together, they participate in social life and interact with their surroundings, brought us to put our focal point on the learnings and potentials around it.

Since our associations work with environmental education and with learners with disadvantages, we are interested in finding educational principles which can link social and environmental questions. The principles of permaculture appear to be very constructive in this regard. Therefore we aim to explore and propose a pedagogical frame of social permaculture, with a focus on learners with disadvantages.

Our aim through this work is to provide new approaches to facilitators to teach learners, including adults from disadvantaged backgrounds, to become true actors of change in their local communities.

This educational model is part of the Erasmus+ Strategic Partnership project "**GROWING COMMUNITIES: Empowerment through social permaculture**" which is funded by the European Commission. The aim of this project is to enable adults – including vulnerable adults – to acquire a wide set of skills, knowledge and competences needed for participating actively in modern society in a lifelong perspective, such as critical thinking, civic and environmental awareness, food autonomy and learning for healthy lifestyles.

About us

Eduplus Association

EDUPLUS Association is a non-profit, socio-educative organization based in Tenerife (Spain). It specializes in organizing international courses for adult educators, teachers, and staff - training around 100-150 people every year. To this aim, EDUPLUS initiated a regional network of educational professionals, non-profit organizations and schools called Tenerife Courses[1].

As a general purpose, EDUPLUS promotes the transformation and improvement of the society through education, culture, ecology and citizen participation. The association facilitates the collaboration between education professionals and other professionals in order to develop and promote active teaching methodologies and innovative tools for formal, non-formal and informal education, many of which are in the field of sustainable development.

EDUPLUS promotes very practical and active teaching methodologies such as: experiential learning, collaborative learning, permaculture, garden-based learning and outdoor education. Hands-on approaches are privileged by using practical exercises, experiments, case studies, games and role plays that the educators can adapt to a wide variety of topics.

EDUPLUS Association also develops projects and educational activities on environmental, social, cultural, personal development and other topics - working both with the general public and for/with disadvantaged / vulnerable groups.

Example of Projects:

- Intergenerational community garden for seniors in the local school garden of Punta del Hidalgo school, with meetings/workshops twice a week.
- Organizing environmental related courses for teachers and educational staff of public and private institutions and NGOS:
- Training course on ¨Innovative approaches to environmental education¨ (https://tenerifecourses.com/2020/01/08/erasmus-innovative-approaches-and-methodologies-to-environmental-education/)
- Training course on ¨Sustainable lifestyles – taking environmental awareness to action¨ (https://tenerifecourses.com/2019/01/14/sustainable-lifestyles-taking-environmental-awareness-to-action/)
- Training course on ¨Outdoor and nature-based education and experiential learning¨ (https://tenerifecourses.com/2020/07/16/erasmus-ka1-course-outdoor-education-nature-tenerife-spain/)
- Organizing visits and workshops at reference ecological gardens and permaculture farms on the island: El Mato Tinto Permaculture Farm managed by ADP Association - Association for the Development of Permaculture in Tenerife (http://www.permaculturatenerife.org/), La Libelula Permaculture Garden, Jamundi Ecological Garden (https://www.jamundi.net/) and others.

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[1] details at www.tenerifecourses.com

Kulturlabor Trial and Error e.V.

Kulturlabor Trial & Error e. V. is a Berlin based nongovernmental organization that was created in 2010. A collective of adult educators, youth workers, designers, artists and builders, craftivists, and urban gardeners, that work with topics of sustainability, creativity, community building, participative citizenship, solidarity economies, media literacy and non-formal education. Through their projects, the members aim to increase awareness about the environment, to encourage critical thinking towards our consumption habits and to promote learning processes in order to find alternative solutions.

The staff is going into schools and youth centres, networking with like minded initiatives and organising events for exchange on a European level. They work with themes like upcycling, creative activism, trashion, urban gardening, DIY, swap economy, through hands-on practice and non-formal education. They impact and reach young people with information about global issues, by using creative means and new media.

Locally Kulturlabor is running several long term neighbourhood projects on participative and sustainable neighbourhoods, building communities through environmentally friendly practices and social networking. For instance they organize workshops on seeds, seed-paper, building garden furniture with recycled materials, creating planting beds and pots, structures for vertical gardening etc.

Community gardening and work with vulnerable neighbours have been our central themes since establishing as an NGO in 2010. The collective works to increase resilience through facilitating empowerment and shared learning. They use gardening as a tool for social inclusion, especially in areas with high poverty risks and amongst people with fewer opportunities.

Moreover, Kultulabor is opening its doors twice a week for a Swap shop - a neighbourhood space, a room for exchange with clothes, books and household items as well as networking in the neighbourhood.

Example of Projects:

Local:
- PANKE. KLIMA - for a sustainable neighbourhood - https://www.trial-error.org/projekte/panke-klima/
- Müllhelden statt Müllhalden!Garbage heroes instead of garbage dumps! -https://www.trial-error.org/projekte/m%C3%BCllhelden-statt-m%C3%BCllhalden/
- Just do it! Solidarity economies as a path towards climate protection // Mach mal! https://www.trial-error.org/projekte/mach-mal-klimaschutz/
- Schillernder Kiez: Shimmering neighbourhood: https://www.trial-error.org/projekte/schillernder-kiez/

International:

- URBAN REMEDY: youth empowerment through community gardening - ERASMUS + youth project - training course for youth workers, local follow up activities to establish gardening initiatives and online youth exchange.
- Swapping culture: a tool for sustainable youth involvement strategies. Publication - https://issuu.com/trial-error/docs/swapping_culture_toolkit
- Urban Beekeeping - a tool for teaching democracy in youth work - an ERASMUS + strategic partnership. Publication: - https://issuu.com/trial-error/docs/urban_beekeeping_guide

Dominou Association

The Dominou Association from Romania (non-governmental and not for profit) was founded in 2004 and has 6 board members and 147 active members (teachers, trainers, volunteers, pedagogical advisers, young students). Their goals include supporting formal, non-formal and informal education of adults, children and youth and in order to acquire the necessary skills and personal development skills for future employment and active citizenship, including promoting human rights, cultural diversity, equal opportunities and nondiscrimination.

Also, one of their main goals is contributing to the protection of the environment. The organization offers accredited adult training courses (by the National Council of Adult Development Training) in 27 fields and educational activities for about 8000 adults and young adults from Craiova and from the villages from Dolj county.

The educational related courses: project manager, competence evaluator, human resources inspector, mentor, trainer, quality assurance specialist, trainer of trainers, school mediator, vocational counselor, have attracted a number of approximate 6000 trainees, 1000 of them future trainers of adults.

Dominou Association is a member associate in 2 international networks: IPCP, with 54 members from over 20 countries sharing interests in theory, methods and practice of active citizenship and E.N.T.E.R. - European network for transferring and exploiting the results of EU projects. The association has working partnerships with educational institutions for young people, adults and children from 7 counties of Romania and 17 countries and has experience in working with different stakeholders, such as county inspectorates, NGOs in all areas of interest, schools, prisons, libraries, social protection bodies, etc. Moreover, we are involved in the "Central and Eastern European Citizens Network'', a social development network involving 17 countries.

Example of Projects:

- MEDIUL - pe intelesul TUTUROR (ENVIRONMENT - understood by EVERYONE): http://asociatiadominou.ro/proiect_MEDIU.php
- Training course - Greengrocer http://asociatiadominou.ro/curs_legumicultor.php
- Managementul si protectia biodiversitatii in ariile naturale protejate "Valea Rea-Radovan" si "Raurile Desnatui si Terpezita amonte de Fantanele" (Management and protection of biodiversity in the protected natural areas "Valea Rea-Radovan" and "Desnatui and Terpezita Rivers upstream of Fantanele") http://asociatiadominou.ro/proiect_Valea_Rea.php
- Masuri educativ-ecologice si diseminarea informatiilor despre ariile protejate privind complexul lacustru Preajba-Facai (Educational-ecological measures and dissemination of information about protected areas regarding the Preajba-Facai lake complex): http://asociatiadominou.ro/proiect_POSMEDIU.php
- TIME TO MOVE ! http://asociatiadominou.ro/proiect_time_to_move.php
- Citizentime: Act, play, involve! http://asociatiadominou.ro/proiect_citizen_ro.php
- Trainlead http://asociatiadominou.ro/proiect_erasmus_ka2.php
- STOP LABOUR DISCRIMINATION OF ROMA IN EUROPE: http://asociatiadominou.ro/proiect_roma.php
- INTERCULTURAL ROAD TO DIVERSITY http://asociatiadominou.ro/proiect_intercult.php
- BRIDGING THE GAP http://asociatiadominou.ro/proiect_bridging.php
- Sustain your life through social entrepreneurship! http://asociatiadominou.ro/proiect_erasmus-ka2.php

About this Educational Model

An open-source toolkit for adult educators working with learners with disadvantages

With this European Educational model (piloted and validated) we want to provide a toolkit for adult educators to teach learners, including learners with disadvantages, to become true factors of change in their local communities.

The model develops approaches for teaching sustainability together with shared values such as social inclusion, solidarity, community spirit, equality (not separate methods, but overall methodology) variety and comprehensiveness, rate of coverage of competences, concurrence to end beneficiaries profiles, match with the training objectives, needs and the training strategy.

The model offers methods, which can be applied to groups with no previous knowledge and experiences in permaculture or community gardening. We wish to provide tools for implementing low threshold educational activities with fast and short time results.

The Educational Model and open educational resources have the potential to be used in other areas of training and education. At national, regional, European or even international level it may be of importance in preparing the trainers to be facilitators in adult education or in youth, for promoting social gardening.

Furthermore, other stakeholders (for example potential users of the outputs like professionals from environmental and social organizations, experts or trainers in the field) will benefit from the access to innovative and interactive learning methods and contents. They will be able to make use of the project outputs which will remain available.

We believe in the advantages of open-source approaches: the model can be continuously collaboratively developed, used and shared. Through field experiences, reviews by peers and new contributors the model can improve and be adapted to specific needs.

A model synthesizing different experiences across Europe and transfer of best practices

We joined our different professional expertise as adult educators and environmental facilitators to create an educational model, which will be used to work with diverse groups of adults, including vulnerable ones.

Through a co-creation process among partners, all partners contributed to identify the key constructs/statements, needs and best practices which can be useful for other contexts as well.

Spanish, German and Romanian educators have had a continuous exchange of ideas and know-how regarding the model during almost monthly online meetings. Through our different backgrounds and field of expertises (for example, the Spanish partner brings more experience in social permaculture, the German one more experience in urban gardening and the Romanian one more experience in working with adults with disadvantages), our cooperation allowed us to learn from each other, transfer innovations and share best practices.

Before working concretely on the model each partner was engaged in a research process regarding the already existing resources in their country. Literature, training courses and initiatives around permaculture and community gardens in our respective regions were examined. This research allowed us to evaluate the different challenges and opportunities as well as the common ones. We hope with this approach to provide a toolkit which can cover the realities of different contexts and reflect an European perspective.

Last but not least, a panel of experts from all partner countries will evaluate the Model and will assure the content has the validity that the description requires. The Educational Model will be evaluated by and validated by the learning facilitators and experts from all partners during the international staff training (LTTA) in Berlin and validated during the local training activities organized with the target groups.

A model assessing gardening as a non-formal and informal learning tool

1. Gardening as a way of promoting community spirit and social inclusion

For marginalized communities, newcomers and learners with disadvantages, the neighbourhood can represent a hostile place where racist, aggressive and other discriminatory behaviors are experienced on a regular basis. It is not rare that we hear newcomers from the global south say that "they live here, but it's not their place". This feeling, induced by many factors (and not only through experiences of racism and social ostracism) is a fertile ground for a vicious circle: if I'm not respected as I am, why should I respect the people and the place where I feel rejected and not valued? A perspective which in consequence leads to destructive behaviors, learning blocades and even more rejection.

How can this vicious circle be interrupted? Encouraging people to transform the place "they live in but not belong to" can be a starting point. Working with the ground and soil on one hand, and to experience the concrete and positive transformation induced by our own action on the other hand can be a completely new experience, which opens the door to learning processes: this is what we want to foster with this model.

While we use the urban gardens with learners with disadvantages, we not only take care of the land we also take care of our peers: we create new ecosystems in our garden at the same time as within our social system. This is a very valuable transformative community process as by understanding your neighbour, less hostility will appear across the neighbourhood: the more you share, the more social cohesion there is.

2. Gardening as a tool for acquiring new practical skills and reaching empowerment

Some marginalized groups are suffering from not being allowed (like refugees) or not being able to take an active part in the society. Missing working permits, disabilities, language, and cultural barriers… Many factors can lead learners with disadvantages to a forced position of passivity. This often results in the apparition of depression and the internalization of "low profile".

Through the care of a garden, a community and finally a city, this effect can be tackled. A very concrete example: if we are not there to take care of a plant, this plant might die: we are necessary for its existence and we are hence part of a bigger picture. To experience that others are enjoying your work and complimenting your efforts is also an important ingredient for intrinsic motivation and empowerment.

Indeed, social permaculture is inclusive - its principles can be applied to group work in all situations, and engage all participants:

> "By using Permaculture Principles to design group work, we enable the very best in people to emerge. We cease to see and experience monocultures of processes and presentations, and enjoy diverse methods of facilitating and participating in groups. [...] Social equality and racial inclusion are not issues outside the permaculture movement but are integral and are at the heart of regenerative design"[2]

The community garden allows new forms of knowledge and skill acquisition, far from conventional learning. Learners are developing competencies without being pressured by competition and external reward or punishment systems like grades and diplomas. The learner learns in the garden mostly for his/ her own personal interests and development. Nobody is forcing a curriculum and gardeners set their own objectives. They have then to gather information and skills accordingly, which needs a learning strategy: asking questions, observing, reading etc. It is essential to develop these learning strategies for many domains in life, but these strategies are often developed at their best, when the learner is curious and experiences intrinsic motivation (see. i.e. Siebert 2014).

Learners who had bad experiences in school (for example feeling humiliated or misjudged through grading systems) often develop so-called "learning blockades" and learning processes are often associated with fears and anxiety to fail. The garden, as a safe(r) space, is providing a learning environment, where failing is ok and even part of the process. If a plant is not growing as expected, then the learner will try to find out why and through this research deep learning is occurring: a learning that will remain in the memory as it was connected to a concrete experience. Furthermore, we observed that ecological gardening can be used as a tool to attract the target groups to learn about other topics that they wouldn't be interested in otherwise.

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[2] "Social Permaculture & Dynamic Groups", Robin Clayfield, 2017

3. Gardening as a tool for changing attitudes and behaviours towards the environment

Additionally, the community garden as a place to learn to take care about nature, people and surroundings is therefore a place to learn to take responsibility and develop a sensibility for the environment. The garden as a long-term project needs attention and actions which are not sporadic and fluctuant according to the motivation and moods of the gardener. The gardener shall be reliable for achieving results and being able to obtain their yield.

The community garden is not only requesting reliability for the plants but also for the community and the collective. Working in a collective means also not breaking joint agreements, being there in good but also bad times and taking an active part in the distribution of tasks, be they pleasant or not.

Beyond the integrative and cohesive aspects, the educational model based on permaculture and community gardening is addressing concrete competences (i. e. social entrepreneurship), practical skills (i.e. resource management) and new knowledge about permaculture, environment, community etc. Even though it can be problematic to evaluate the learning outcomes of gardening, we matured a list of different tangible competencies, which can be gained through permaculture and community gardening (see the map of competencies).

A model with methods for non-formal and informal education

The methodology is focused on **social networking** and **non-formal education**, by using micro-learnings that can be easily adapted at national level based on the needs of each target group, including the specific needs of the participants with fewer opportunities.

The model also contains the assessment methodology - exploring different methods, through social media, website and feedback sheets to collect feedback. The methodology responds to the previously identified training needs of adults at the European level and in the partners' countries, with focus on the needs of adults with disadvantages that have limited access and little motivation to take part in environmental education because they often face financial instability, health problems and other difficulties.

We opted for **Bite-sized learning tools**, as we believe they are more able to respond to the needs of our target groups. Bite-sized learning allows educators to integrate funny and relational aspects in their training; and to step aside hierarchical didactic patterns, which can be rebarbative.

(Learn more: see "Methodological recommendations")

Concepts and framework

In this chapter we want to define the notions and issues we are working with as well as outline the philosophy of permaculture and social permaculture.

The educational model and the methodological tools we are developing aim at responding to some of the main European challenges: the **challenge of inclusion** and the **challenge of environment and climate issues**. Even though we can't go deep in the theoretical aspects, it is important to clarify these challenges.

Social Inclusion

We base our understanding of inclusion based on the definition provided by the United Nations:

"Social inclusion is defined as the process of improving the terms of participation in society, particularly for people who are disadvantaged, through enhancing opportunities, access to resources, voice and respect for rights"[3].

The Commission of the European Communities develops furthers the terms of participation:

"Social inclusion is a process which ensures that those at risk of poverty and social exclusion gain the opportunities and resources necessary to participate fully in economic, social, political and cultural life and to enjoy a standard of living that is considered normal in the society in which they live. It ensures that they have greater participation in decision making which affects their lives and access to their fundamental rights"[4]

Social inclusion corresponds therefore to organisational efforts and practices in which different groups or individuals having different backgrounds are culturally and socially accepted and respected for who they are. The process of Inclusion improves the sense of belonging and the feeling of being valued.

Our target groups, adults with disadvantages, are subject to social exclusion: different factors like unemployment, poor skills, low incomes, poor housing, high crime, poor health and family breakdown etc... lead them to an inability to participate in the normal activities available to the majority of people in a society. Vicious circles are then unavoidable, disadvantages leading to even bigger disadvantages. The efforts for social inclusion are therefore aiming to break this negative dynamic and create possibilities for participation.

Around 22,4% of the population in Europe lives in households at risk of poverty or social exclusion – and the percentage is even higher in rural areas or suburbs. The most powerless people in our societies are likely to be worst affected by the consequences of a crisis (like the COVID 19 pandemia), not only economically, but also regarding the access to affordable and balanced food.
Increasing food autonomy and changing consumption patterns towards sustainable habits could be a way for adult educators to motivate and empower final beneficiaries to improve their socio-economic situation, health and educational opportunities.

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[3] https://www.un.org/esa/socdev/rwss/2016/chapter1.pdf
[4] European Commission, 2004, p. 10

Environmental and climate challenges

The European Environment Agency reports 3 main alarming trends[5]:
1) a catastrophical rate of biodiversity loss,
2) increasing impacts of climate change,
3) overconsumption of natural resources.

These trends impact not only the environment but also human health and well-being. For example, exposure to fine particulate matter is responsible for around 400 000 premature deaths in Europe every year, affecting central and eastern European countries disproportionally. Climate change has substantially increased the occurrence of climate and weather extremes, including heat waves, heavy precipitation, floods and droughts, in many regions of Europe, which is having a catastrophic impact on people's lives, like losing homes. The report of the Agency also underlines that Europe is "*affected by indirect climate impacts occurring in other parts of the world in multiple ways, such as through trade and supply chains, spread of infections, threats to international security, or migration*"[6]

The lack of improvements in these disastrous trends are due to the inextricable link of polluting activities with economic activities, lifestyles and systems of productions and consumptions which provide Europeans with necessities such as food, energy and mobility. It is therefore urgent to reconsider these polluting economic activities, lifestyles and systems of productions and consumptions. Permaculture and social permaculture can provide an approach to improve our relationship with the environment and with others.

What is permaculture and social permaculture?

Permaculture

"Permaculture is a system of conscious and integrating design of sustainable human settlements and agricultural ecosystems, following the model of natural ecosystems, so that they produce what people need, but at the same time to support themselves and contribute to environmental regeneration"

(Definition translated and adapted by the Romanian Permaculture Research Institute after Bill Mollison.)[7]

The ethics of permaculture - **care for the earth, care for people and fair share** - promote the protection of all life forms on the planet. It "forces" us to take responsibility for our actions. We can choose to be part of the problem or the solution.

Care for the earth includes all concerns aimed at the well-being of the planet, the protection of ecology and biodiversity, active care for a living soil, fertile, permeable, rich in organic matter. It is up to us to choose an ethical and responsible course of action that contributes to our health and the health of the planet, or an irresponsible one that endangers the quality of life of future generations.

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[5] https://www.eea.europa.eu/soer/2020
[6] https://ec.europa.eu/clima/news-your-voice/news/commission-launches-online-public-consultation-new-eu-strategy-adaptation_en
[7] https://www.institutuldepermacultura.ro/ce-este-permacultura

At an individual level we can make a positive impact through simple actions such as: supporting regenerative agriculture, donations to ethical entrepreneurship initiatives, buying local products, drinking filtered water, using bicycles or walking for transport, reducing consumption, cultivating a garden, etc.

At a collective level we can gather with other like-minded people to have a stronger voice together and generate a bigger, more profound impact. It can be done, for example, by creating or supporting environmental projects and cooperatives, creating consumption groups or shared ecological gardens, doing environmental lobbying, demanding policies and concrete measures to the local, regional and national level etc.

At an institutional level we can demand our politicians, influencers and key stakeholders to change the laws, policies and actions towards a more respectful care for the Earth.

The individual measures alone have been proven to have a small impact in the world, the institutional level is very slow, so that is why the collective power is necessary to increase the impact and put more pressure on the institutions.

People Care asks that our basic needs for food, shelter, education, employment and healthy social relationships are met. The principle of People Care is an understanding of the power of community and all members of the community must be taken into account.

In the poorest parts of the world, **caring for people** can mean access to sufficient food and clean water, safety, shelter, etc., while in rich countries there is a need to reposition the concept of comfort and consumption and an industrial technological revolution to replace the current unsustainable systems. However, caring for people is not limited to meeting material needs, since most conflicts have an emotional and socio-political cause. There is also a need to increase our social and interpersonal skills, which are less developed than our technical skills.

Permaculture seeks to **share resources equitably** between humans, animals and plants, without forgetting that future generations will need food, water and shelter just like us. Knowing the limitations of a system seems to be a challenge, but at the same time a reality that, if assumed and realized, would make it easier to navigate to fair and long-lasting solutions. The intention is to develop a mutually prosperous culture of cooperation, instead of one based on individualistic competition for limited resources.

We can say about horticulture and classical agriculture that they mainly answer questions such as: "what?", "how?" and ``when?''. About permaculture we can say that it rather answers the question "where?". Permaculture deals mainly with the location of the components of an ecosystem, aiming at creating beneficial relationships between them and, implicitly, the creation of resilient systems, as autonomous as possible.

Apart from the agricultural dimension, permaculture also includes topics such as responsibility and social enterprises, sustainable energy, natural buildings, ecological village projects, etc.

In permaculture, changing perceptions of agriculture refers primarily to understanding natural mechanisms, and using their variations to increase productivity, decrease inputs, or reduce work on the farm or garden.

At a farm level, these mechanisms are applied through the use of green crops, compost, no till technology, grazing programs, the agroforestry system, or keyline design methodology.

The 12 Principles of Permaculture

1. ***Observe and interact*** - The first principle of Permaculture requires a radical openness for the unknown. By observing natural and social patterns and acknowledging their specificities and complexities, we accept not to mold the reality according to our wishes but let this reality inspire us for further actions. The gardener needs to adapt to the situation he/she finds: is the soil dry? Is there a lot of shadow? What can we do with this situation? Which organisms are already there and profiting from this situation?

2. ***Catch and Store Energy*** - This principle refers both to sun energy as well as food energy: it is also about fermentation and storage: While it's there, share it, keep it, store it. Before it's gone. Water and other natural resources are of vital importance both in a permaculture plantation as well as in society. There are several ways in which this water, the same as the food or the solar energy, can be stored and spread and well used. It is a matter of exploring, trying and researching.

3. ***Obtain a Yield*** - What do we want to achieve? Is it just the power of nature surrounding us? Is it a good harvest to feed ourselves every season? Beauty, food, a nice, functional outdoor space can be examples of these goals. Clarifying them in order to create a real sustainable and long term experience is good setting objectives and goals. Seeing these goals being acquired with time will keep the energies and motivation, both in our garden and in our life.

4. ***Apply Self-regulation and Accept Feedback*** - Taking the example of the Earth as the biggest self-regulated habitat and the feedback we, as humans, have given it throughout history, we can appreciate its changes and responses to this feedback. Permaculture is teaching us to create responses and try to be as self-regulated/self-sufficient as possible, never forgetting we are not alone and our systems may be affected by external forces (such as humans/fires/plague, …) towards which we need to act.

5. ***Use and Value Renewable Resources*** - Making the best use of nature's abundance while reducing our consumptive behaviour and dependence on nonrenewable resources is another of the important principles permaculture offers: while keeping our sheeps and chickens alive, we will have wool and eggs for a very long time and their wastes will feed the soil in which their food grows: self regulation, interaction. Not only with gardening, but also using everyday objects that reduce oil and carbon consumption is part of the philosophy and the next principle.

6. ***Produce No Waste*** - Plastic, cars, water, clothing, tools… There is no such thing as waste, only misused or incorrectly stored stuff. The remains from our garden and food can become the best compost to feed our soil and repairing, reusing, refusing and recycling should make the rest with our belongings. Circular economies are a way of living which we can promote and actively practice in most of the world populations, and a garden is the first step to do so. "Waste not, want not".

7. ***Design from Patterns to Details*** - Same as in society and humankind, nature is held by patterns: Permaculture requires previous work on designing our project: taking into account the patterns of the ecosystem we will be working is crucial so we see the bigger picture before we settle details. For example, Aquaculture systems can be very productive in their own right and once the patterns are in place the possibilities for integration with other systems are endless.

8. ***Integrate – Do Not Segregate*** - Getting together and collaborating is the way in which projects get done better, faster and enriched. In permaculture and nature, it is by the interactions and actions of all the actors of an ecosystem that it gets self-sufficient, working healthy and properly. Permaculture tries to copy that concept, always with an open soul and an aim of togetherness and collectiveness.

9. ***Use Small and Slow Solutions*** - They are easier to maintain: the bigger size, the hardest fall. Our projects, solutions and ideations should maintain a realistic scale. Also in terms of slow living, slow consumption and slow food, we refer to an alternative way of living in which fast food, fast consumption, fast fashion is left aside. The slower the solution, the more time we have to think about ways of facing improvised problems.

10. ***Use and Value Diversity*** - In Permaculture, as well as in Nature and society, the richness comes from the diversity. This principle stands under the concept of an enriched ecosystem that supports itself: the big tree is shadowing the plant that doesn't need so much light, while the fungi are growing under it; very similar to what stands under the principle number 8. This idea differs greatly from the traditional monoculture which does not value diversity at all. We do and use it to nature's and our good.

11. ***Use Edges and Value the Marginal*** - The best is not always in the cleanest area, but rather in the "in betweens". We need to value those grey areas of the garden, of our community, in which inspiration may come first: Maybe using for a free box that is part full with trash of the garden? Or inspiring ourselves in the weed growing between the wall bricks to create a vertical garden?

12. ***Creatively Use and Respond to Change*** - Could be a conclusion and general learning from all the above principles: change is the only constant in nature, history and society. We learn from permaculture to use creativity and cope with improvisation in a constant and positive way. Transformation in our ways of living is a process which never ends, same as in nature.

Social Permaculture

Even if social permaculture is still a field defining itself, it is an approach which can help us understand and work with social systems. Social systems (communities, economical, political structures) can be organised less artificially by listening and observing the needs and requirements of the environment and the people. Social permaculture can be applied into different communities with diverse backgrounds, and in our case, with learners with disadvantages.

Social permaculture is using permaculture ethics and principles in order to create designs which are based primarily on social contexts. For example, behaviour, finances, organisations or communities.

Patrick Whitefield, called permaculture "the art of designing beneficial relationships"[8] . Moreover, when we look around us, it seems that we are embedded in larger systems that do not encourage beneficial relationships. The neoliberal economic system, the different constructs of discreminations—racism, sexism, classism, heterosexism, ageism, ableism— and the disconnection with nature affect us and shape our ways of interactions and living together.

Social permaculture applies the systems-based design of permaculture in urban, social and group contexts to organise and cooperate more effectively, rethinking existing social and economic structures. For example, the different species of plants grow together in harmony, helping each other, and not segregated in different plots as in traditional agriculture. Social permaculture is being used in our project as a metaphor to give hope to the target groups that a more equal and solidary society is also possible.

As L. MacNamara points out, social permaculture can be seen as a toolkit, which help us design our life and interactions in communities:

"We need tools for the invisible structures of communication, decision-making, well-being, education, group dynamics and community building. We need tools that challenge and awaken, move and invigorate, nourish and empower us; tools that bring us into a fuller sense of ourselves and connect us with the bigger vision of possibility for ourselves and humanity. It is going to take

multiple tools to emerge the cultures that will enable the ethics of Earth care, peoplecare and Fair shares to grow and flourish for now and future generations."[9]

This educational model is aimed at finding innovative approaches to how to design resilient communities and environments through social permaculture. Applying permaculture system design to natural environments means they will be more resilient to climate change and other changes. Applying social permaculture at societal level empowers people and communities to develop beneficial relationships with the ecosystems which sustain us and better withstand shocks and disruptions.

What is community gardening?

Urban, Peri-urban, Rural Agriculture

When thinking of agriculture, the first image that comes to our mind is normally some field in the countryside. Usually with an abundance of available land and a lack of socio-cultural activity, rural areas are obviously a privileged target for community gardening projects.

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[8] Patrick Whitefield, 2004: The Earthcare Manual
[9] Lobby MacNamara, 2019: People & Permaculture, P. XXVI.

On the other hand, urban and peri-urban agriculture (UPA) has emerged as a new trend, and proves to be extremely interesting.

- The concept is simple: use available space within and surrounding the boundaries of cities for the cultivation of crops and other agriculture activities (forestry, livestock, fishery, etc).
- The benefits are many: UPA "provides fresh food [locally], generates employment, recycles urban waste, creates greenbelts, and strengthens cities' resilience to climate change."[10]

The city of Detroit, USA is a living example of the regeneration of urban space through UPA[11], with great results on food sovereignty and general socio-economic improvements (the city counts over 1,500 urban farms and gardens).

Community Gardening

Gardening in a community is a domain familiar to society since pretty much gardening and agricultural activities have been invented and dates back to BCC. Throughout the times, it has taken shape as communal working on fields, shared spaces of commons inside, or beyond the borders of the settlements and villages, community supported agriculture, and then - allotment gardens and later the urban community gardening in the shape we know it nowadays. Characterised with * limited space, often public, or semi-public ownership, * often pollution of soil and air, * diverse, sometimes conflicting groups, using the space, * access to local community and helpers, * bank of knowledge and experiences.

In the beginning of the 19th century, the British government allocated plots on public lands for gardening to address the issue of food shortage, as, due to industrialisation the urban population had rapidly grown. Later on various forms of communal gardening have been adopted across the world. "Followed by changes in people's style, growing interest in healthy living and sustainable urban development, the aims of urban gardening become more complex. The product of urban gardens, e. g. vegetables or ornamental plants, nowadays plays a less important role, as the main focus is on societal issues, urban regeneration, education and health."[12]

The **benefits** of the participation to a permaculture community garden are numerous and diverse:
- development of healthy human interactions and community building
- social inclusion through team work and group projects
- improved communication and group cohesion in the neighbourhood
- acquisition of practical skills that help improve one's life quality: gardening, resources management, healthy food, etc… towards healthy lifestyles
- increased food autonomy to better deal with economic instability and health difficulties
- ability to make use of organized structures, processes and methods
- improved creativity and problem-solving skills: innovative solutions using available resources
- raised awareness and knowledge about the environment and climate change.

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[10] Definition from the FAO: http://www.fao.org/climate-smart-agriculture/knowledge/practices/periurban/en/
[11] See for example: http://detroitagriculture.net/
[12] Alisa Koroļova & Sandra Treija, *Urban Gardening as a Multifunctional Tool To Increase Social Sustainability In The City,* 2018

Context of each partner
and review of the actual resources and needs

Spain

In Spain and throughout Europe, permaculture is slowly gaining popularity. Despite the fact that permaculture is mostly known as a gardening style, it is much broader. Many of the initiatives and projects which work towards alternative and sustainable resources management, environmental care and social relations do use - often without naming it - the principles of Permaculture as a guideline. That is, the care of land, the care of people and the fare sharing through design principles inspired by the "diversity, stability, and resilience of natural ecosystems" (Bill Mollison).

The tools and techniques of permaculture provide powerful development solutions on all aspects of our lives and environment, including the integration into the community. The full potential of Social Permaculture is yet to be acknowledged in Spain.

Permaculture initiatives

Most of the existing permaculture projects in Spain take the form of private permaculture gardens on the one hand, and permaculture farms or ecovillages in rural areas on the other hand. Permaculture community gardens in urban areas - and more specifically the ones which emphasize social inclusion - are scarce.

Training courses about **Social Permaculture** are slowly gaining recognition. Tackling a great deal of human interaction aspects - from participative project governance to general community building - they offer precious resources for social development and inclusion. However, these courses are not specifically designed to target participants with complicated socioeconomic situations.

Social Permaculture's principles can be employed in community projects in order to benefit these vulnerable people. The fundamental concepts of diversity and inclusion need always to be remembered in all their extent[13]: they should be applied not only to the fauna & flora, but to the human group itself.

Urban and Community gardening

Community gardens are more and more **trendy** in European cities and suburbs. Run by the local authorities, associations, or groups of neighbours, they allow urban inhabitants to have a privileged contact with nature and to make use of a piece of land. In the case of socioeconomically vulnerable adults, they represent a unique opportunity to help the process of (re)integration into the local community.

As mentioned previously, most permaculture projects are private, even if they generally promote community-building spirit through their group activities or courses. Thus, there is room for more community garden projects, because they answer a different need: to be part of the initiative, to play a role in its practical development… To feel part of the **community**.

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[13] Joe Atkinson, 2014: Permaculture, Diversity & Inclusion

To reach this goal, the **permaculture model** is undoubtedly one of the best suited, being both inclusive and respectuous of diversity. As the pioneer Earthcare educator Robin Clayfield states[14]:

> *"By using Permaculture Principles to design group work, we enable the very best in people to emerge. We cease to see and experience monocultures of processes and presentations, and enjoy diverse methods of facilitating and participating in groups."*

Available courses and resources

There is a rather diverse online and offline offer of available material and training courses such as Permaculture basics, Permaculture Design, etc. In Spain and worldwide, many of these courses are **inspired from the official Permaculture Design Certificate** (PDC) - an internationally renowned curriculum developed by the co-founder of Permaculture Bill Mollison.

Observing that most permaculture teachers work independently, there have been attempts at creating networks and frameworks, in order to foster (trans)national collaboration and better disseminate the discipline.

The **European Permaculture Teachers' Partnership**[15] (EPT) for instance aims at supporting the professional development of permaculture teachers, and increasing the quality of Permaculture education generally across Europe. They created an online teacher's Handbook, and made attempts towards a European Permaculture Curriculum.

National collaboration was improved in the last few years, notably thanks to the creation of a national Iberian network[16], embodied in various working circles and an annual convergence for permaculture teachers and users.

Target groups and needs analysis

Projects and initiatives tend to target teachers or educators, youth and any adult individual interested in learning about permaculture. There are activities and training opportunities of all types designed for adults, youth summer camps etc.

Among all these initiatives, there seem to be little offer targeting specifically adults at risk - even if a big part of the projects include notions of social inclusion and community building. Adults at risk of socioeconomic exclusion are generally less likely to look for empowering projects or decide by themselves to attend such courses. Indeed, in an international study[17] analysing the influence of socio-demographic characteristics on the level of participation to permaculture grassroot projects, the socioeconomic status is proved to be a determining factor (overall, the participation rate improves with the socioeconomic conditions).

Yet the few existing initiatives in that area show very promising results. Here are some exemplary projects:

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[14] Social Permaculture & Dynamic Groups, Robin Clayfield, Permaculture Magazine, 2017
[15] European Permaculture Teachers' Partnership, https://permateachers.eu/
[16] Red Íbera De Permacultura, https://www.permaculturaibera.org/convergencia-estatal-permacultura/
[17] "Grassroots engagement with transition to sustainability: Diversity and modes of participation in the international permaculture movement", Rafter Sass Ferguson and Sarah Taylor Lovell, 2015

- **PERMIND Project**[18] uses permaculture as a therapy to empower and help the social reinsertion of people with mental illness, inspired by the 23-years old model of the Association for the Development of Permaculture - Finca el Mato (ADP-FEM)[19], which is the main referent of permaculture in Tenerife, Canary Islands, Spain. They also created an elearning platform to train the trainers working in the field of mental illness and to further disseminate therapeutic permaculture.
- **"Cultivando Fortalezas"**[20] uses agriculture as a psychosocial development and inclusion tool. Although not explicitly mentioned, the notion of social permaculture is successfully applied since people with different socioeconomic backgrounds are encouraged to interact and work together. Moreover, their gratifying system (certificates delivery etc.) empowers vulnerable people and allows them to feel part of the society, showing the efficiency of such an approach.
- **SIDIG-MED**[21] developed Urban and Peri-urban Agriculture (UPA) pilot projects in Mediterranean countries, using permaculture and organic farming to promote social and intercultural dialogue; and to fight social exclusion and poverty. Cross-border cooperation was likewise reinforced. Focusing partly on governance systems, one of SIDIG-MED's conclusions is that "appropriate design and management by local associations were key factors of success and sustainability for pilot projects''.

These results, amongst others, highlight the relevance of such projects and indicate how crucial it is to keep developing, disseminating them: vulnerable adults need to be encouraged to join and participate in the community!

That is why the EDUPLUS Association will mainly focus their work on **seniors in rural disadvantaged areas**.

Training needs

In order to be successful, urban and community garden projects need relevant **design** and **management**. A study[22] conducted in four different European countries highlights the general lack of training around such projects, stating that community gardens' users need to be trained on crop management, communication and community-building - in order to carry out active, beneficial, sustainable urban gardens.

From a practical point of view, all successful permaculture or community gardening projects with a focus on the socioeconomic factor involve prior training processes. The aforementioned SIDIG-MED[23] project, conducted in Spain and other Mediterranean countries, shows a relevant example of improved socio-intercultural dialogue and local development thanks to carefully planned governance and training projects about permaculture in urban and peri-urban agricultural activities.

The dissemination of training tools that are easy to comprehend and implement - such as activity toolkits, workshop guides, microtraining models etc. - represents a considerable opportunity to enable very diverse educators or project leaders to provide such training to community gardens' users.

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[18] PERMIND, Applying Permaculture in the Recovery Process of People with Mental Illness
[19] Permacultura como terapia, Finca el Mato, Tenerife
[20] Cultivando Fortalezas, Ecogranja la Aldea, Tenerife https://www.laecogranja.org/cultivando-fortalezas/
[21] SIDIG-MED Project, https://agri-madre.net/project/sidig-med/?lang=es
[22] "Sustainable Community Gardens Require Social Engagement and Training", *Sustainability* **2019**, *11*(14), 3978
[23] SIDIG-MED Project, 2013-2015, http://www.idaea.csic.es/medspring/link/sidig-med-project

Romania

Permaculture initiatives

Permaculture is a recent trend in Romania, practiced for the time being only by a small group of innovative farmers, and by several private households. Permaculture uses natural mechanisms to create productive agro-ecosystems with low inputs and costs. It is mainly associated with organic farming, but most techniques are also applied in conventional agriculture.

One way of applying permaculture in Romania was by offering training and consultancy in ecological agriculture and permaculture, focused especially on the design of farms, but also of small, urban or rural properties. It mainly focuses on increasing soil fertility for the benefit of farmers, decreasing annual inputs and increasing profitability, as well as the beneficial effects of increasing biodiversity on pest-predator interactions.

The consulting experts offer consulting and arrange gardens for households, gardeners, holiday home owners, or people in rural areas, work predominantly with farmers, using no-till agriculture in large crops, green crops, biofertilizers, shrubs and fruit trees, but also vegetable growing on small and medium farms.

The Permaculture Research Institute of Romania is a network of professionals and entrepreneurs from various professional fields who develop and support ethical eco-social projects in Romania. They support the practice of permaculture from a multidisciplinary perspective through research, consulting, mentoring, education and implementation of regenerative projects with a positive impact on the environment and the community.

There are also some models of urban regeneration that exemplifies how systems of permaculture, education, circular economy, energy and food can be creatively combined in a network of urban gardens, which will bring extra energy and vitality to the lives of citizens.

The Permaculture Club is a meeting place for those passionate about permaculture, it is a space for connection and learning, it is an invitation to collaboration, action and sharing the experience. The aim is to make Permaculture known and to consolidate a community of people with experience in the field of permaculture so that we can start and materialize as many permaculture projects as possible.

Community gardening

Grădinescu

The Romanian Permaculture Research Institute Association and a European supermarket from Romania have created the first network of community urban gardens, transforming their roofs, parking lots and shops into green spaces cultivated with vegetables, fruits, shrubs, herbs and flowers, which can be used by the community.

"**Grădinescu**"[24], as the project developed together with the partners of the Romanian Permaculture Research Institute Association is called, is the first in Romania and promotes care for nature, community spirit and supports the development of urban agriculture through its own example. "Grădinescu" also aims to familiarize children and adults with gardening and the ease of having a healthy diet even in urban areas, the company announced in a press release.

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[24] http://www.gradinescu.ro/

The "Grădinescu" project consists of a network of nine community urban gardens, three of which are located on the roofs of the stores, four in parking lots or behind shops and two in schools in Bucharest, the capital of Romania.

Farmers on the balcony

Urban agriculture or "balcony gardening" is an increasingly common occupation in Romania.

The first study on the spread of urban gardening in Romania (study conducted by the BICEED Institute[25], on a representative urban sample of 1143 people from large, medium and small cities in Romania, through questionnaires applied in the field, face to face) shows that 7 out of 10 Romanians practice urban agriculture, growing vegetables, greens or fruits at home, out of the desire to enjoy their own, natural crops.

Of these, more than half choose to grow greens (57% respondents), while 39% grow fruit and 27% grow vegetables, some combining several types. The plants most often cultivated by Romanians in urban areas are strawberries (25%), lemons (20%), followed by tomatoes, potatoes, parsley, thyme and rosemary.

The balcony is the favorite place for urban agriculture of almost 50% of Romanians, while 14% cultivate in front of the block, 8% on the outskirts of the city, and the rest do not find a place in the city, focusing on plots outside it.

Available courses and resources

As the notion of permaculture has become known, introductory courses in Permaculture have also been developed that allow participants to gain an overview of ethics, design principles and practical tools, techniques and strategies for producing their own healthy food, to take care of yourself, your family, your community and your environment. Practical activities and guided tours complete the theoretical information.

Courses have also been developed that offer work tool packages (design, implementation, maintenance) in permaculture and related disciplines, scaled and adapted for use in the context of school gardens. The emphasis will be on the description of the functions and elements of a garden in the school yard and how they can be used by educators and children in the educational-creative process.

Romanian specialists have been part of the team that implemented the design of the Ridgedale Permaculture farm since 2014, one of the most well-known examples of permaculture and Keyline Design at farm level in Europe. There they improved their practical and theoretical knowledge about farm-scale permaculture design, establishment of agroforestry systems, planned grazing by rotation, green crops, no till technology, natural constructions, waste management, project management, knowledge they shared with interested citizens of Romania.

Here are some examples of courses/workshops and manuals available in Romania:
- "Introduction to permaculture"[26] by Institutul de Permacultura, held since 2018.
- "School Gardening Manuals"[27] by Institutul de Permacultura, 2015
- "Permaculture Design in the Household "[28] by permacultura-romania.com, 2014
- "First Steps in Permaculture"[29] by Laura, 2018 (youtube video)

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[25] https://research.biceed.eu/index.php
[26] https://www.institutuldepermacultura.ro/workshop-permacultura
[27] https://scoaladingradina.ro/s/manuale/
[28] http://permacultura-romania.com/permacultura-in-gospodarie/
[29] https://www.youtube.com/watch?v=wYRYpLkhGvY

Target groups and needs analysis

Currently, most of those involved in permaculture in Romania are people from urban areas.

Being often associated with young people at the beginning of the road, people from alternative currents, or convinced ecologists, without too much technical training in agriculture or practical experience, **the image of the permaculture current** in Romania suffers.

Even if in recent years, **permaculture** in Romania has experienced a steep growth, including among farmers and people who start a micro-farm, we consider that it is necessary:

- Exposing all examples of good practice to farmers' associations, profile organizations, the political element and the media;

- Creating an information and consulting network in ecological agriculture and permaculture in Romania, dedicated to farmers;

- Organizing a structure to represent farmers who use regenerative practices, at national and European level.

This is why we will focus on unemployed adults from rural areas (including young adults, parents and grandparents) as they need to learn about food autonomy or make a living out of it ; will do the gardens in local schools in rural areas.

Training needs

By analysing the permaculture initiatives in Romania we can conclude that these involve young and active people, especially from urban areas or with a good financial situation. Usually the consulting organizations offer standardized permaculture courses, excellent for farmers, small farmers, households, gardeners, or people from urban areas, interested in gardening and green projects.

The unemployed adults from rural areas need to be involved, too and learn about ways to sustain themselves financially by using their own land.

The main subjects that need to be presented are:

- The importance and role of topography in design
- Increasing soil fertility
- Household water management
- Ecological vegetable gardens for one's own needs
- Mixed orchards of trees, shrubs, and other perennials, using a permaculture design
- Compost and vermicompost
- Waste management
- The social and economic context of a household

Germany

Just before we start, let us excuse ourselves that we are not covering the entire Germany - our focus is community gardening and inclusion in Berlin, as that is our field of action as well as the path of Berlin has always been and is unique. Though most of the urban gardening initiatives in Berlin are members of the German-speaking network of Urban Community Gardens, curated by anstiftung[30] (a foundation that supports urban gardening, open workshops and other post-capitalistic and sustainable practices) with over 800 entries of initiatives in Germany and nearby, Berlin has its own story, context and Garden map with around 100 entries of self organised community gardening in the city.

Permaculture Initiatives

In regards to Permaculture, amongst other ways of gardening, permaculture is a recognized and well-practiced concept. You find here both - specially designed Permaculture Design Courses, networks of experts and projects, as well as integrated elements and easier accessible models of teaching, sharing and practicing permaculture in farming, community gardening or city greenery context.

There are numerous project initiatives, as well as places - community run or private - that are practicing permaculture in Germany. As a sample you can check the list of initiatives on the website https://permakultur.de/praxisorte/. The coordinator of the website - the Permaculture Institute - was established at the beginning of the 80's, which also shows how established the domain of permaculture in areas of gardening and agriculture. The areas of permaculture overlap with work of many other networks, focusing on environmental protection, preservation of seed variety, soil quality and so on. Another significant and popular practice in Germany, that covers permaculture areas, is the SoLaWi, or CSA - Community Supported Agriculture - a concept that includes not only growing food, but also responsibility towards environment and community participation[31].

An important role plays the new generation of gardeners, bringing permaculture into educational and social institutions, as well as closely working with farmers, scientists and companies to scale up the practices (for example, the Climate Farmers movement for regenerative agriculture[32]).

At the moment, in Berlin most of the community gardens have at least a part, where permaculture principles are practiced. The community members have knowledge that is being shared in the circles.

Despite the plentiful resources, due to its complexity, also language and cultural barriers, or simply because of the high expenses of the courses, the permaculture still has remained a domain available to few, or closed groups, often attributed to more spiritual circles people, or single off-grid farmers and there is a space for improvement and opening up to wider society.

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[30] https://anstiftung.de/
[31] www.solidarische-landwirtschaft.org
[32] https://www.climatefarmers.org

Growing Communities

Community Gardening

Gardening in community is nothing new - it has existed in all times and in all kinds of forms. The urban community gardening, as we know it now, comes from New York in the 70s, transmitted to Europe, later on also such forms as guerilla gardening in London, or intercultural gardens in Germany (Göttingen, Berlin) developed. With its development, community gardening was tackling not only the issue of food production, but addressing ecological, social, political issues, also playing an important role and critic towards the neo-liberal ways of city planning.

As one of the most prominent gardeners and researchers, author of several publications and books about community gardening, Elisabeth Meyer-Renschhausen writes in her book, main factors for the popularity and origins of communal, self organised urban gardening in Berlin are (1) the availability of spaces (first - swampy areas, where the building wasn't allowed, then - ruins and open areas due to the 2WW & Berlin Wall), (2) the incentives of municipality for encourage self-sufficiency through growing population of the working class in the emerging metropolis, (3) high unemployment and intensive migration, (4) the openness in the society for self-expression, DIY, community and creative activities, (5) the necessity and political will for environmental protection measurements.[33]

As mentioned above, the urban gardening network in the German speaking room has over 800 entries and Berlin itself - over 100. However, there are many other forms of communal and urban gardening: gardening in shared backyards, taking care of the areas around trees on the streets, guerilla gardening in abandoned areas, or neglected corners of public parks, communal areas of gardening in the settlements of allotment gardens, gardens allocated to social and educational institutions, old cemeteries, gardens in front of or on top of shopping malls, museums and other public and semi public spaces.

The values and the struggle of the urban community gardeners in Berlin is best reflected in the unique manifesto of urban gardening "The City is Our Garden"[34], signed by many urban garden collectives. The manifesto directly responds to the challenges the urban community gardening movement is facing in Berlin - often such projects are used for green-washing purposes for the housing companies, or lack of policy in the city level to address the gentrification, or adjust the city to the challenges of climate change. As well, the community gardening is often used by the city to shift the responsibilities for resolving the social issues, without attributing the necessary resources to the gardens.

As in relation to the project topic - social permaculture and working with adult learners with limited possibilities - we would have to mention the concept of intercultural gardens. Even though most of the urban community gardens in Berlin and Germany have inter- or transcultural aspects, this concept is focused on creating a safe space and bringing together people with different cultural backgrounds.

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[33] E. Meyer - Renschhausen. *Urban Gardening in Berlin – Touren zu den neuen Gärten der Stadt.* Berlin, Bebra Verlag 2016
[34] https://urbangardeningmanifest.de

The first intercultural garden was established in 1995 in the city of Göttingen, as an answer to a group of refugee women from Bosnia to question "What do You miss the most from your homeland?" The concept and its significance in the processes of integration (social, cultural, economic, political) have been analysed in the book "Roots growing into the unknown: the "intercultural gardens" and its meaning for the integration processes" by Dr Christa Müller. [35]

Available courses and resources

Due to the volume of permaculture and community gardening initiatives in Germany, we are not able to provide a comprehensive overview of all the courses and resources, but we share our sources of inspiration and information.

As mentioned above, as a comprehensive list for community and urban gardening one can find on the website of the Urban Community Gardens under the section "Praxiswissen" (from German - practical knowledge). In the last years the network has also hosted plenty of webinars that are available to the public as a playlist on YouTube.

The present offers in the area of permaculture can be found on the website permakultur.de. About Berlin, there is a calendar of training courses by the organisation Zukunftsfähig e.V.[36], which offers Permaculture Design Courses (PDS), 72 hours courses as well as in-depth courses in various content areas of permaculture.

The types of courses we could classify as:

- presentations and exchange circles (occasionally offered by community gardening spaces, projects, initiatives, individuals),
- practical hands on workshops on specific techniques of permaculture (like, how-to build a herbal spiral etc),
- introduction in permaculture (usually 2-4 days long, comprehensive course to tackle the basic principles of the permaculture)
- the official Permaculture Design Courses - 72 hour course usually as a three week intensive course,
- hands-on weekends.

We were told there are several ways to learn:

- find an official, privately organised course - it is usually very high quality, but at the same time can be expensive, therefore less accessible,
- NGOs, social & educational institutions offering courses, that are covered by project,
- do own research online and literature,
- establish a self-learning group.

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[35] C. Müller, Dr. *Wurzeln schlagen in der Fremde. Die Internationalen Gärten und ihre Bedeutung für Integrationsprozesse.* München, ököm Verlag. 2020
[36] https://zukunftsfaehig-ev.de/

A tip from our team member is to find a community garden that also has members with a knowledge base, join the community, get to know about the actual courses as well as use the opportunity to suggest a course or desire to learn in one of the community meetings.

As we mentioned already in the beginning, the main challenge is the accessibility of the resources to people with lower income, education, or migration background, that is the main target group for our community gardening activities.

Target groups and needs analysis

Working with learners with disadvantages in gardens has a long and rich tradition in Germany - from its establishment of allotment gardens, when the city dwellers from lower working class where encouraged practice gardening for food sovereignty, for improvement of life quality and healthier choices of free time activities to emerging numbers of gardening with newcomers (migrants, refugees), for example, in the 90s after the war in Balkans or in the light of 2015-2016 demographic situation and migration due to war in Syria.

Kulturlabor Trial & Error gardening activities are mainly located in Berlin Neukölln neighbourhood, characterised by economic and social challenges, high density of population and cultural diversity - over 160 nationalities call this place their home. The area has been heavily affected by gentrification - the rental prices have skyrocketed during the last 2 decades, that also has contributed to the very segmented groups of income, cultural habits and education, that do not necessarily interact with each other.

Whilst practicing gardening on the streets of Berlin Neukölln, particularly area of South Rixdorf, we have the opportunity to meet with very different groups adults, amongst them

- retired people, who have inhabited the neighbourhood since a long time,
- lower middle class families with children,
- long-term unemployed people,
- persons facing addiction issues (alcohol, drugs),
- new-commers - both well situated, with good education, middle income level as well as in very low income level

The spoken languages are German, English, Kurdish, Turkish, Arabic, Polish, Russian, Spanish, Romanian, often there are language and cultural barriers that are to be overcome, before gardening and in-depth permaculture can even start. A good part of our target groups actually suffer from social isolation, often lack legal means to participate in society (for example, no voting rights).

While we lack a qualitative research on needs of the target group in regards of the gardening project, based on experience and interpersonal interactions, it is

- need for a safe and clean public space, free of rats, garbage, rests from consumption of alcohol, drugs, need for place to retreat, recreation,
- need for social services, support with bureaucracy,
- need for social contacts, community, interactions, overcoming language and cultural barriers,
- financial and material support (monetary, in kind) to cover the basic needs.

And only then comes the need for green public spaces, possibility to garden, the therapeutic effects of plants, place for self realisation and need for engagement, to find a place in the community, improve self esteem and feeling of community, as well as engagement to improve the climate in the neighbourhood.

Training needs

First of all, it is required to differentiate from the two roles in the project:

1. Multipliers/facilitators:

They will need to have social and psychosocial skills to face the diverse and often complicated life situations of our target groups while asking themselves this question which can serve as guideline for their work:

How can social permaculture be the tool to approach other social issues faced by our target group?

The main challenge for these facilitators will be finding a way in which social work and gardening collide, applying social and cultural sensitivity, skills for psychosocial accompanying as well as gardening knowledge of course.

2. Target group:

The participants will be required and asked for a minimum commitment towards the project : responsibilities have to be taken, and some entrepreneurial skills can be helpful as well, in terms of commitment and taking part. They will also be required to have some minimum social competences - interacting within a group, being able to share spaces in a diversity-friendly space, communicational skills, cultural awareness… And even if gardening techniques knowledge is desirable, only the willing to learn about permaculture and nature is needed.

However, it may be difficult to engage participants who are isolated from society. Maybe a rethinking of the methods and the first implementation can be enriching not to get lost into paternalistic attitudes.

Conclusions

As expected, the contexts of each partner are very different. This allows us to discuss and cover different problematics.

Permaculture Initiatives compared:

The overview of permaculture initiatives in Spain, Romania and Germany shows us that the permaculture movement is having different significance in the different countries. While in Germany we find a considerable amount of initiatives, networks, theories, references we can see that permaculture in Spain and Romania remains mainly a private occupation or an approach reserved to the rural and farming context. To enhance social permaculture in suburban and urban areas for community building and social participation represents therefore an important goal for the spanish and romanian partner.

Community gardening compared:

In the three countries we can observe that community gardening is in the trend and slowly finding its place in the public discourses and practices. But due to different local contexts the community gardening projects are facing different complications.

For example, in Berlin the gentrification process makes a way for community gardens to be instrumentalized for raising the rents or operating green-washing.

In Romania, we can see that the lack of spaces in the cities makes it difficult to instaure common gardens in the public space and often private spaces, like rooftops or parking slots of the supermarket or balconies, are the only available areas where gardening is possible.

In Spain, even though the number of community gardens increased considerably in the last decades (16 cities reported community gardens in 2006, and in 2017 they were 400 cities), Spain still has a reduced number of 6.2 community gardens for every 10.000 inhabitants[37] - whereas in Germany the ratio is 123/10.000. Part of the challenge is that a large majority of community gardens in Spain are situated in big cities like Madrid, Barcelona or in the Andalusia region - popular for agriculture.

Courses and resources compared:

The three partners assess many possibilities to learn permaculture in their countries (in Germany more than in Spain, more than in Romania). All three partners noticed that these courses are often not really accessible to learners with disadvantages and that the coining of permaculture with social questions, as we understand it with the paradigm of social permaculture, is not yet established in learning programs.

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[37] Ecologistas en Acción, 2018, "20 años de ecologismo social en la política de transporte"

Target groups and need analysis compared:

The three partners are working with different target groups, facing different difficulties, but which are all not really considered in the current educational programs of permaculture.

The Spanish partner, working mostly with isolated seniors, would need programs that include this group and encourage them to join gardening projects in their neighbourhood. The Romanian partner observes that, while permaculture is finding its way in the urban middle class, people in rural areas working with agriculture or unemployed are often missing the access to the knowledge and skills associated with permaculture. The German partner, working with a wide range of marginalized groups - from long term unemployed, refugees to people with addictions - notices that the various needs (safety, housing, administrative help etc.) of these groups are difficult to cover with a strict permaculture or gardening curriculum. Social permaculture should therefore propose a holistic prism where care is in the center.

Training needs compared:

All the partners acknowledge a need for new, easy and accessible methods, which could quickly engage the participants with disadvantages. Here, some nuances between the partners can also be found: while Spain shared the concern about how adults can have access to these toolkits, the German partner is concerned about how the permaculture tools can actually fit the needs of the vulnerable target groups.

Content areas

Content areas are domains of skills and knowledge. They help us to "organize" knowledge, design teaching programs, and implement learning activities. We used the the Key Competences for lifelong learning established by the Council of Europe[38] as a guidance to define the areas:

1. Literacy
2. Multilingualism
3. Numerical, scientific and engineering skills
4. Digital and technology-based competences
5. Interpersonal skills, and the ability to adopt new competences
6. Active citizenship
7. Entrepreneurship
8. Cultural awareness and expression

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[38] European Council Recommendations, 2021:
https://ec.europa.eu/education/education-in-the-eu/council-recommendation-on-key-competences-for-lifelong-learning_en

Social permaculture in community gardening covers 2 main areas of competences, both practical and theoretical: one related to *biological and environmental learning*, one related to *social and political learning* and finally one related to *personal development.* These 3 areas cover competences which are fostering personal fulfilment, a healthy and sustainable lifestyle, employability, active citizenship and social inclusion. Some of these competences are detailed in the next chapter.

Ecological - changing attitudes and behaviors towards the environment and climate change

Based on our research and experiences we identified following content areas related to biological and environmental learning through social permaculture in community gardening:

- …Biodiversity
- Animal systems
- Soil
- Water systems
- Seeds
- Gardening techniques
- Resource management
- Food autonomy
- Climate
- Permaculture

As we can't develop all content areas in this model and we decided to base the model on our own experiences and expertise, we choose to focus our learning tools on three main content areas:

1) Basic knowledge about permaculture (biodiversity, design, mulching etc.)
2) Basic knowledge about gardening techniques
3) Basic knowledge about resource management (water, energy, soil etc.)

Social - promoting community spirit and social inclusion

Content areas related to social and political learning through social permaculture can be:
- Communication
- Decision-making processes
- Diversity and inclusion
- Active Citizenship
- (social) Entrepreneurship
- Self-organisation

Here as well we choose to focus on three main content areas:

1) Basic knowledge about decision-making processes
2) Basic knowledge about (social) entrepreneurship
3) Basic knowledge about (transcultural) communication

Personal - acquiring new practical skills and reaching empowerment

Content areas related to personal development) through social permaculture can be:

- Health
- Self-esteem
- Resilience
- Self-determination
- Dedication
- Motricity
- Goal-achievement

Here as well, we will focus on three main content areas:

1) Health
2) Self-esteem
3) Resilience

A wide range of competences can be discerned around these different content areas.

Map of competences

The map of competencies is covering different skills, knowledge and behaviors which could be achieved through the educational model. Therefore, the map helps to frame the learning objectives and outcomes. Furthermore, the map allows us to visualize interrelated competencies and cluster different domains of learning. Finally, it should be noted that the grid is not providing information on how to "measure" or evaluate the competencies.

Through our research and experiences, we identified three main domains of content areas and competencies, which can emerge from the educational model "Social permaculture through non-formal lifelong learning in community gardens". The three domains are the following 1) Personal acquiring new practical skills and reaching empowerment. 2) ecological - changing attitudes and behaviours towards the environment and climate change. 3) social - promoting community spirit and social inclusion. These domains have no hierarchical order and the competencies they cover can easily overlap.

The following grids give an overview of the identified competencies and the related content eras. The list of competencies is not exhaustive and is here narrowed to 12 main competencies per domain for concision purpose. The classification helps us define which competencies can be reached with which contents and methods.

Ecological - changing attitudes and behaviors towards the environment and climate change	
Competencies	**Content Areas**
Consciousness about own food consumption	Resource management Food autonomy
Knowledge about climate and climate change	Climate Food autonomy
Knowledge and skills about permaculture and systems design	Permaculture
Knowledge and skills about food preservation	Resource management Permaculture, Food autonomy
Knowledge about geographical structures and landscapes	Soil, Permaculture
Knowledge about biodiversity and fauna	Biodiversity, Animal systems, Permaculture
Knowledge and skills about crop management	Biodiversity, Seeds, Gardening techniques Resource management, Food autonomy
Knowledge about botanical processes and natural cycles	Biodiversity, Soil, Seeds, Permaculture, Gardening techniques,
Knowledge about waste	Resource management,Climate
Knowledge about different forms of pollution (light, noise, soil...)	Soil, Climate
Knowledge and skills about energy and energy-saving	Resource management, Climate
Knowledge and skills about water-management	Soil, Resource management, Permaculture, Climate
Knowledge and skills about soil composition and compost	Soil, Permaculture, Resource management

Even though many of the the competencies mentioned above are common to conventional gardening/agriculture, through this Educational model we will tackle all from the point of view of permaculture.

Social - promoting community spirit and social inclusion	
Competencies	**Content Areas**
Sense of belonging	Communication, Self-organisation Active Citizenship
Intergenerational understanding	Communication, Diversity and inclusion, Active Citizenship
Cultural awareness and expression	Communication, Diversity and inclusion, Active Citizenship
Learning to transmit knowledge	Communication Diversity and inclusion Active Citizenship Self-organisation, (social) Entrepreneurship
Project-management	Decision-making processes, Active Citizenship , Self-organisation, (social) Entrepreneurship
Ownership of public space	Decision-making processes Participation in Civil society
Collective and democratic decision-making	Communication, Decision-making processes Diversity and inclusion Active Citizenship, (social) Entrepreneurship
Sense of usefulness	Diversity and inclusion Active Citizenship (social) Entrepreneurship
Sense of support and solidarity	Communication Diversity and inclusion Active Citizenship
Sense of responsibility and commitment	Communication, Decision-making processes, Diversity and inclusion, Active Citizenship (social) Entrepreneurship
Adaptability and ability to adopt new competences	Decision-making processes Diversity and inclusion
Learning to learn	Diversity and inclusion
Knowledge about alternative economies (i.e swapping cultures)	(social) Entrepreneurship, Active Citizenship

All the above said together is also giving a very important and realistic sense of active citizenship to all the participants in urban gardens. For many, this may be the first taking part into collective action and community building, but social permaculture and urban gardening is all about creating new alternatives for social systems which embrace environmental values, equity, and sustainable lifestyles, which could be deepened into degrowth education and ideology.

Personal - acquiring new practical skills and reaching empowerment	
Competencies	**Content areas**
Critical thinking about consumption	Self-determination
Consciousness and tools for healthy lifestyle	Health, Self-esteem, Resilience, Self-determination, dedication
Patience and ability to concentrate on a task	Dedication, Resilience, Motricity, goal-achievement
Ability to deal with stress	Health, Resilience
Goal orientation	Dedication, Self-esteem, Self-determination, goal-achievement
Enthusiasm for the future	Dedication, Self-esteem, Resilience, goal-achievement
Creativity	Self-esteem, Self-determination, Motricity
Ownership on actions	Dedication, Self-esteem, Resilience, Self-determination, goal-achievement
Attention and care	Dedication, Health, Self-determination
Time-management	Dedication, Self-determination
Sense of control	Dedication, Self-esteem, Self-determination, goal-achievement
Ability to self-critique and deal with critique	Self-esteem, Resilience, Self-determination
Precision and structure	Dedication, Motricity

Methodological recommendations

Pedagogical approach

Working with adults

Adult education obviously demands other approaches than working with children and youth. The relationship between the teacher and the learner is based on trust and motivation, as most of the programs are non-mandatory (as is the primary education). The motivation of the learners is therefore central and represents one of our main challenges.

To foster motivation it is essential to adopt a learner-centered approach: we need to include the former experiences of the learners, include their perspectives, resources and realities in the learning-process, and make visible and tangible the transfer of knowledge acquired into their own life. We find it important to "meet the people, where they are at" - apply subject oriented educational activities, design the content and the methodology of the models based on the needs and capacities of the learners. To include the knowledge of the learner in the process demands flexibility and a sense of improvisation, which is not ever easy with fixed curriculars and it is there where non-formal and informal approaches can be helpful. Adults come with their own experiences and knowledge, which sometimes generates strong and rigid opinions,- and which sometimes is not valued or recognizable as such. It is the role of the facilitators to integrate these inputs, respect and build upon it.

Furthermore, it's our responsibility as educators to find a way to introduce new concepts in a non-top-down way. Patronizing and authoritative attitudes can enhance drop-off and adult learners can develop passive learning strategies, which is contra-productive for deep and emancipatory learning. Therefore it is important to develop methods where learners and teachers have a non-hierarchical relationship and where both are active. In the first place it is recommended to be there as an individual and to show that your attitudes and behaviours are just different perspectives on the same subject / value / problem that you share with the learners. In the learning - provide a lot of nonformal times, exchange off the official activity time. Build relationships and trust between the facilitator and learners and focus on authenticity of the connections.

We prefer to work with the concept of facilitation, not use the concepts "teacher" and "educator". In this process we are all learners. We are not there to transmit "hard knowledge", present ready-made concepts. As a facilitator we bring some methods and tools, but then it is up to learners to see what and how they can use them (for further research see i.e. Siebert 2014).

Non formal and informal education provide hence a fertile ground for applying these approaches. We can develop friendly relationships with the learners and create a learning environment, where learning is not bound to external pressure. Furthermore the educational model we propose with non-formal and informal learning processes is not based on conventional reward systems as grades and diplomas. The valorisation of the learner and the rewarding of goal achievements needs to be connected to the own satisfaction of the learner with himself.

Working with learners with disadvantages

First of all, it is necessary to get to know your target group. Who are the learners? Which former good and bad experiences might they bring with them? What are their needs and wishes? What are their fears and blockages? Where do their disadvantages come from?

According to this information you might reconsider your methods with regard to different aspects, which might put the learners in discomfort.

Here are some suggestions of aspects to consider while preparing your programm:

- **Accessible language**
  Is there a common language or do you need translation? Can you reformulate the content with other wording? Do you need visualisation to illustrate certain contents? Is the rhythm of communication adapted to your group?

- **Possibility to work in smaller groups**
  Lack of self-confidence, shyness, language barriers or socialized roles might hinder some people from expressing themselves. Here it's good to create tandems and safer spaces for learners which encounter difficulties to communicate.

- **Methods for different senses**
  We all learn differently and in order to leave no one out, do not hesitate to combine in your explanations, exercises and activities a combination of visual, oral and tactile inputs. Different researches showed that using the different senses in educational activities lead to a deeper learning (ref).

- **Cross-disciplinary approaches**
  As using different senses, don't hesitate as well to create bridges between different disciplines. Some adults might be more pragmatic, others more emotional and others more social learners. In order to connect to their different sensibilities you can refer to different disciplinary perspectives on one subject. For example, you can talk about compost with biological facts but also with historical facts and little anecdotes.

- **Framing of the learning encounter**
  Are the times fitting the needs of your group? Over which channels do you choose to communicate outside of the meetings? Is there enough breaks and time to process the content? Are the physical needs of the participants considered (ex. chairs for people who can't stand long…)?

Without developing further these inclusive pedagogical aspects, we should remember that learners with disadvantages often come with frustrating learning experiences. Thus, it is even more essential to create a safe and comfortable learning environment, in order to avoid demotivation and drop-off.

The community gardens as a learning field enable learning through experience and action learning. It means learners do learn by being themselves active and taking responsibility. Learning comes through participation; participation leads to empowerment and helps combat exclusion. Therefore, the main role of the facilitator will be to foster engagement. Trustful and positive relationships are one of the key elements and not only between facilitator and learners but also between the learners themselves.

Setting up a respectful atmosphere - where so-called "stupid" questions and mistakes are allowed - is the responsibility of the facilitator as well. Practices such as opening an activity with some ice-breakers, or setting common rules for respectful interactions... are therefore never wrong.

Our values

At this stage, it is obvious that we can't think of adult education with disadvantaged learners without taking in consideration some **key values**.

Here are the core values upon which our educational model is built:

- o Equity
- o Active citizenship
- o Participation
- o Departing from the experience of the learners
- o Addressing the needs of the learners
- o Contextualise the issues addressed in the project
- o Interactivity, learners are encouraged to contribute
- o Degrowth education
- o Not to be invasive
- o Bottom-up
- o Non-patronising
- o Inclusive approach
- o Social cohesion
- o Solidarity
- o Sustainability
- o Environmental values

Bite size learning tools as pedagogical answer

Due to their format, the Bite Size Learning tools (BSL) are ideal when working with any kind of learners with disadvantages. They can encompass all the aforementioned methodologies in a very handy and effective way - applying the concept of "simple is better".

Bite-size learning tools can be used in micro-trainings and social networks: they are short, they can be informal - perfect to be adapted in the garden or outdoor locations. They can be developed and practiced in a very short time, adapted to the target group of learners. They are designed to be highly participative and have a short-term impact. They can tackle any topic, and bring basic knowledge about social permaculture in a very entertaining way…

The advantages are numerous. That is why we chose to develop a set of BSL for social permaculture in community gardens: in order to provide handy materials to any educator, project leader, neighbour, anyone willing to make their community garden more participative and spread the core values of permaculture.

We will publish the Bite-size learning tools on our website: www.growingcommunities.es

…so stay tuned!

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