



SEEDing Successful young female entrepreneurs for a green world by regenerative agriculture – SEEDS

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D3.1 Methodological Guide for Youth Trainers STUDY BOOK

Partners

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YOUTH

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„The development of ecological understanding is not simply another subject to be learnt but a fundamental change in the way we view the world.” (John Lyle, 1994)

“Learning is experience. Everything else is just information.” Albert Einstein

“Formal education enhances what you do, self-education nourishes who you are. ”



INTRODUCTION

Education is facing major changes emerging new technologies and growing need for flexibility and creative usage of our knowledge. The globalised society and labour market of the 21st century - or in the wider sense all areas of life - offers us both new opportunities and also challenges due to information overload. To face these challenges successfully and get the most out of the almost infinite possibilities, it is important to be able to flexibly adapt to the new circumstances and use the available information skilfully, according to our goals and potentials.

This goal can be achieved most effectively if we recognise the importance of continuous learning, especially youth learning - often not in the old sense of the word (acquisition of specific knowledge in organised form) but innovative learning for own happiness and success in life, learning from own and others experiences, learning for creative self-expression. Of course, we cannot give up on academic knowledge - such as reading, writing, calculating - but the rapid changes in most fields and the appearance of many new fields requires a completely different approach in education.

As the importance of continuous learning in everyday life increases, new ways of learning are appearing and gaining in relevance. Workplaces, jobs or personal interests are not for a lifetime anymore, people need to learn new skills and competences almost every day. With the unfolding of knowledge-based society in developed countries, the demand for different, more flexible types of knowledge arises. New forms of learning evolve and become widespread beside the organised and institutionalized education. Another new trend gaining in importance in recent times (mainly in northern European countries, e.g. Finland, but the tendency is also noticeable in almost all EU countries, too) is that traditional „subjects“ such as mathematics, science, history and geography disappear or are substituted with „topics“, „projects“ or „interdisciplinary subjects“. These help students to gain more overall and comprehensive knowledge and skills and a more open attitude.

This all-embracing view helps also scientists or professionals working on different areas to collaborate with each other in new, innovative ways. Informal and non-formal learning support this tendency as generally there is no defined curriculum and there are no separated subjects in the learning process.





1. METHODOLOGY OF GREEN AGRICULTURE EDUCATION

When most of us try to figure-out education, things such as classrooms, teachers, blackboards, books and exams are the first to come to mind. And as we have got so used to formal education, the kind that takes place in schools and universities and leads to official certificates, we tend to forget that the concept of education has a far broader scope.

Most modern formal education shares those four aims: all students should get a set number of courses passed and ideally acquire a certain degree of knowledge about their subjects, they

then receive an internationally recognised and standardized certificate, and that enables them in turn to practise some profession and enter the job market.

On the other end of the balance stands informal education, the kind of learning we do while we are providing for our needs or communicating with others, without intending to learn or even realising we are doing it. The informal education will never be fully superseded by formal education, and that the latter can still learn some valuable lessons from the former.

There is a third kind of education that lies between the two we have already discussed. Like formal education, there are teachers and pupils engaging in it consciously and with the shared aim of instructing the latter, but it often lacks, like informal education, examinations and marks, official recognition and an established curriculum. It has been given the name “non-formal” education in modern times, but it also predates formal education.

This is also the way regenerative agriculture teaching works, though a bit more formally than usual since there are a curriculum, books, e-learning platform and the regenerative agriculture design course.

There are many different approaches to the regenerative agriculture design course within the community, so regenerative agriculture teaching is decentralised and flexible, unlike formal education. We have all experienced formal and informal education and are very familiar with the advantages and disadvantages of both. Non-formal education, alike to regenerative agriculture in that it is inspired by nature and equipped with the tools of modern science and pedagogy, tries to find a balance between the two.

The easiest way and making learning about regenerative agriculture more effective is to do it together with a group of likeminded people, for example in school gardens, community gardens or farms. We can organise short courses offered by invited individual experts, advisors, farmers, professional schools and even higher education institutions, universities.

A special advantage of a garden/farm as an educational tool is the flexibility it offers to implement activities and programs for learners of all ages and abilities. A garden/farm offers opportunities to reach students of all learning styles (visual, auditory, kinaesthetic).





Potential target groups for courses about regenerative agriculture:

- Farmers or simple individuals who would like to learn about making herbal products for various, (including home) uses, at a hobby level;
- Individuals with a low level of education, living mainly in rural areas, - who would like to learn a new/additional profession, also as a potential source of alternative income.

We can establish gardens for learning purposes for helping people living in underdeveloped areas. People in these areas are often familiar with the basics of gardening or organic agriculture, but they do not always know how to do it efficiently. The knowledge of regenerative agriculture can increase their quality of life.

Main steps of organization of a short course with practical training:

- Setting of goals of the course
- Choosing concrete topics, good practices we would like to demonstrate
- Financial planning: identify the costs assigned to each part of the program (materials, tools, personal costs etc.)
- Selecting teachers, speakers
- Choosing the place of practical training (garden), preparing technical requirements
- Detailed planning of the activities on an hourly basis (schedule)
- Preparing of educational materials

1.1 Community-based learning for sustainable development

Today we have a world population of about 7 billion people. As our non-renewable natural resources are limited, we need to learn how to live together sustainably. We need to take action responsibly based on the understanding that what we do today can have implications on the lives of people and the planet in future.

Sustainability education (SE), Education for Sustainability (Efs), and Education for Sustainable Development (ESD) are terms describing the practice of teaching for sustainability. ESD is the term most used internationally and by the United Nations.

Agenda 21 was the first international document that identified education as an essential tool for achieving sustainable development and highlighted areas of action for education.

For UNESCO, education for sustainable development involves:

- integrating key sustainable development issues into teaching and learning, such as instruction about climate change, disaster risk reduction, biodiversity, and poverty reduction and sustainable consumption.
- participatory teaching and learning methods that motivate and empower learners to change their behaviours and take action for sustainable development.
- promoting competencies like critical thinking, imagining future scenarios and making decisions in a collaborative way.





Education for Sustainable Development (ESD) empowers people to change the way they think and work towards a sustainable future, empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society.

ESD acknowledges and celebrates all forms of education and learning: formal, non-formal, informal and incidental in the context of life-long and life-wide learning for all. Non-formal education and community-based learning provides opportunities for children, youth and adults to transform themselves and their communities through their individual and collective actions. Multi-faceted approaches are necessary in ESD, which responds to issues with complex causes and outcomes. ESD involves a holistic approach which embraces the dynamic interaction and complementarity of traditional wisdom and modern knowledge, the changes in urban and rural environments, and skills development and learning which value ownership, citizenship, participation and empowerment.

1.2 Active learning

Active learning is a teaching method that strives to more directly involve students in the learning process.

The term **active learning** was introduced by the English scholar R W Revans (1907–2003). Bonwell (1991) states that *"in active learning, students participate in the process and **students participate when they are doing something besides passively listening.**"* (Weltman,)

Active learning is *"a method of learning in which students are actively or experientially involved in the learning process and where there are different levels of active learning, depending on student involvement."* (Weltman)

It is a model of instruction that focuses the responsibility of learning on learners.

It was popularized in the 1990s by its appearance on the Association for the Study of Higher Education (ASHE) report (Bonwell & Eison 1991). In this report they discuss a variety of methodologies for promoting *"active learning"*. They cite literature that indicates that to learn, students must do more than just listen: They must read, write, discuss, or be engaged in solving problems. It relates to the three learning domains referred to as knowledge, skills and attitudes (KSA), and that this taxonomy of learning behaviours can be thought of as *"the goals of the learning process"* (Bloom, 1956).

In particular, students must engage in such higher-order thinking tasks as analysis, synthesis, and evaluation.

Active learning engages students in two aspects - **doing things** and **thinking about the things they are doing** (Bonwell and Eison, 1991).

There are diverse range of alternatives for the term "active learning" like learning through play, technology-based learning, activity-based learning, group work, project method, etc. the underlying factor behind these are some significant qualities and characteristics of active learning.

Active learning is the opposite of passive learning; it is learner-centred, not teacher-centred, and requires more than just listening; active participation of each and every student is a necessary aspect in active learning. Students must be doing things and simultaneously think about the work done and the purpose behind it so that they can enhance their higher order thinking capabilities.





Many research studies have proven that active learning as a strategy has promoted achievement levels and some others say that content mastery is possible through active learning strategies. However, some students as well as teachers find it difficult to adapt to the new learning technique.

Active learning should transform students from passive listeners to active participants, helps the student understand the subject through inquiry, gathering and analysing data to solving higher order cognitive problems. There is intensive use of scientific and quantitative literacy across the curriculum and technology-based learning is also in high demand in concern with active learning.



System and Mechanisms of the Active Learning Development Model

Barnes (1989) suggested principles of active learning:

1. **Purposive:** the relevance of the task with the students' concerns.
2. **Reflective:** students' reflection on the meaning of what is learnt.
3. **Negotiated:** negotiation of goals and methods of learning between students and teachers.
4. **Critical:** students appreciate different ways and means of learning the content.
5. **Complex:** students compare learning tasks with complexities existing in real life and making reflective analysis.
6. **Situation-driven:** the need of the situation is considered in order to establish learning tasks.
7. **Engaged:** real life tasks are reflected in the activities conducted for learning.

Active learning requires appropriate learning environments through the implementation of correct strategy. Characteristics of learning environment are:

1. **Aligned with constructivist strategies** and evolved from traditional philosophies.
2. **Promoting research-based learning** through investigation and contains authentic scholarly content.
3. **Encouraging leadership skills** of the students through self-development activities.
4. Creating atmosphere suitable for **collaborative learning** for building knowledgeable learning communities.
5. Cultivating a dynamic environment through **interdisciplinary learning** and generating high-profile activities for better learning experience.



6. **Integration of prior knowledge** with new ones to incur rich structure of knowledge among the students.
7. **Task based performance enhancement** by giving the student's a realistic practical sense of the subject matter learnt in the classroom.

1.3 The role of local communities

Local communities have an indispensable role to play in supporting people’s learning and development and in creating societies that are engaged, inclusive and sustainable. Community-based learning strengthens bonds across generations, promotes agency and self-reliance, and fosters social cohesion, thus encouraging active citizenship and a sense of ownership of a community’s future. Moreover, it enables the exchange of information and the development of skills necessary in tackling the challenges of today’s rapidly changing world, ultimately contributing in a very significant way to sustainable development at local level.



To stress to policymakers and other stakeholders the wide and far-reaching benefits of community-based learning, particularly in the light of the 2030 Agenda for Sustainable Development, the UNESCO Institute for Lifelong Learning (UIL) has published a new policy brief, Community-based learning for sustainable development. This policy brief, co-published with the Global Action Programme on Education for Sustainable Development, advances six principles of action to develop the role of community learning centres (CLCs) as the main delivery mechanism for community-based learning: responding, engaging, enabling, embedding, sustaining and transforming.



Six action principles towards a shared vision of education for sustainable development

Furthermore, to allow CLCs to put these principles into practice in a holistic and integrated manner, the paper proposes four policy recommendations for local and national governments to:

- provide dedicated resources for community-based learning;
- create mechanisms for partnerships and networking opportunities;
- organize ongoing capacity-building to ensure well-qualified and trained staff and volunteers;
- support learning content development.



1.4 Education for Sustainable Development (ESD)

Definition of Education for Sustainable Development (ESD) is a vision of education that seeks to empower people to assume responsibility for creating a sustainable future. It aims at improving access to quality basic education, reorienting education curricula, training and raising public awareness as well as helping people to develop the behaviours, skills and knowledge they need, now and in the future.



The five pillars of ESD

ESD supports five fundamental types of learning to provide quality education and foster sustainable human development, namely;

- **Learning to know**

- To recognize the evolving nature of the concept of sustainability
- To reflect the ever-growing needs of societies
- To acknowledge that fulfilling local needs often has international effects and consequences
- To address content, context, global issues and local priorities

- **Learning to be**

- To build on the principles and values that underline sustainable development
- To deal with the well-being of all three realms of sustainability - environment, society, and economy
- To contribute to a person's complete development: mind and body, intelligence, sensitivity, aesthetic appreciation and spirituality

- **Learning to live together**

- To build capacity for community-based decision making, social tolerance, environmental stewardship, adaptable workforce and quality of life

- **Learning to do**

- To contribute to a concrete reality for all our daily decisions and actions
- To build a sustainable and safe world for everyone

- **Learning to transform oneself and society**

- To integrate the values inherent in sustainable development into all aspects of learning
- To empower people to assume responsibility for creating and enjoying a sustainable future

Following the identification of three categories of skills, the EFA Global Monitoring Report recommended focusing on three main areas of skill development for rural youth:

- **improving access to primary and post-primary education, especially for girls;**
- **expanding training for basic and vocational skills** to make up for gaps in the rural labour market; and
- **providing business and entrepreneurial skills training** to improve understanding of market opportunities and improve managerial expertise.



2. SEEDS TRAINING MANUAL

The **Methodological Guide for Youth Trainers** of the **SEEDing Successful young female entrepreneurs for a green world by regenerative agriculture - SEEDS** project aimed to strengthen, upgrade and help systematize the efforts of youth trainers from developing country participants and to improve SEEDS human and institutional resource capacity to respond to the needs of trainers and educators in GREEN regenerative and sustainable agriculture.



During the last years in general and in particular since the beginning of the project, through the Analyse of Needs Reports performed in each of the four MENA participating countries, a number of constraints and weaknesses were encountered both by SEEDS consortium and its partners in the various training programs on Green agriculture, especially the ones on regenerative agriculture. Some of these include, the lack of knowledge, the need to update relevant training materials, and inadequate training skills of trainers.

In this regard, the guide is meant to be also an excellent tool to spread the experiences gained with the project. It will help regenerative agriculture trainers in their conduct and formulation of their training programs, containing all the elements for establishing an effective regenerative agriculture related training program, including basic training principles and concepts. Moreover, it includes a comprehensive practical guideline for the actual implementation of SEEDS future sessions and training programs.

By this, the trainings to be performed will increase and enhance capacities for entities located in MENA countries for vocational education and training, will increase working and work quality with Youth in Green agriculture, following the principles of regenerative agriculture. I would like to delete, because is not totally true.

This leads to increase the access to the labour market of participating youngsters and their better self-identification in the society. Gender equality in economic activity can generate substantial macroeconomic gains.

Muchmore, by offering the support for promoting the female labour force participation in MENA countries, including aspects reflecting women's economic activity such as unemployment, occupational segregation, earnings, working condition, and entrepreneurship, the Guide increases knowledge, build skills and present significant examples, make a real difference in the way future SEEDS project training programs will be developed and conducted.

2.1 Aims and Scope

The Methodological Guide for Youth Trainers (MGYT) was developed to improve the trainer's skills quality and the availability of didactic material for future youth trainers on regenerative agriculture. It offers a resource basis for trainers with the idea of encouraging individual adaptation and further development of the material according to the needs. MGYT can be used as a guide and source book to



implement further training program. It helps developing the structure of a training course or workshop and provide material and ideas for its organisation.

It is anticipated that the trainers and trainees already have some agricultural and farming background and that the training activities will focus on aspects specifically relevant to regenerative agriculture followed by healthy farming, innovation food and smart RES low-cost solutions for farms. MGYT attempts to provide a comprehensive introduction to all relevant fields related to regenerative agriculture and entrepreneurship.



Target Groups

MGYT addresses trainers and resource persons who are engaged in youth training activities on regenerative agriculture. It can be used to facilitate trainings for trainers and extension workers, but also directly for training farmers interested in learning about regenerative agriculture.

Geographical Scope

The main focus of MGYT is on regenerative agriculture practices mainly in Hungary, Spain, Austria, and Romania, though some parts can also be from other regions of EU, and preparing the knowledge transfer towards MENA countries (Tunisia, Morocco, Egypt and Jordan).

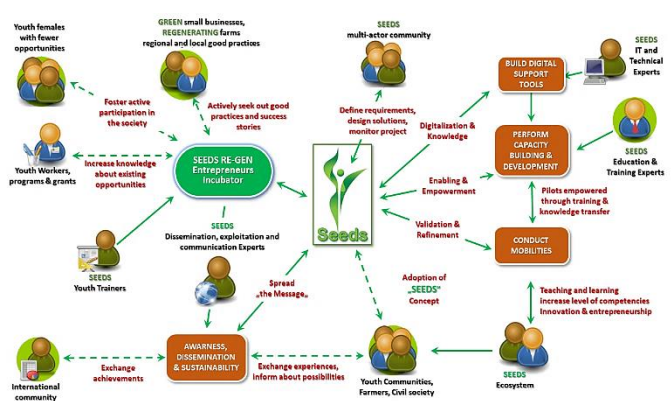
Training approach

MGYT is based on a training approach combining lectures, presentations, illustrations and demonstrations (all summarized and inserted later on the Trainers Module from the SEEDS e-Learning Platform), and active participation of the trainees. A balanced mix of these elements allows understanding of regenerative agriculture through listening, seeing, experience sharing and later, trying. It is assumed that participants can contribute to the program of the training based on their background and experience. Therefore, interactive elements and practical exposure (field visits) in the course are highly encouraged and MGYT will aid for their implementation.

2.2 Structure

MGYT provides the minimal necessary introduction to the regenerative agriculture, focusing more on recommendations about the didactic and organizational aspects of a training programs to be performed in MENA countries, based on SEEDS e-Learning platform developed by the SEEDS consortium, dealing with the topics of regenerative organic farming, innovations in healthy food and food production, healthy farming, smart RES low-cost solutions for small and medium farms and entrepreneurship and business plan education, has prepared the background for the trainers in order to provide high level performance.

The relevance of topics covered in MGYT will vary depending on the focus of the offered training and the region. The modular system allows for selection of single elements of a section or chapter and for





combination of elements from different modules or topics. In addition to the selected examples, trainers can and should include local examples and integrate their own in the training materials. The MGYT aims to provide a source for training material and ideas rather than being a readymade curriculum for a training program.

Adaptation

The style and content of the MGYT, even was designed in a simplistic manner, may be too sophisticated for some participants, and too simple for others. Youth Trainers are highly encouraged to adapt the material to the requirements of the audience. If a deeper examination of a certain subject deems necessary, the trainer can consult the recommended readings. Trainers are invited to adapt them to the local conditions and to get inspired to develop their own ones.



3. DIFFERENT TYPES OF LEARNING

Every student has a strategy they use to remember information more efficiently while studying. Some of them take notes; some make diagrams; some prefer to listen to lectures, etc. Since no learning style fits all students, scientists have conducted research in order to understand the way students learn new information best. Let's have an overlook at the different types of learning they have distinguished.

Scientists have for years tried to understand the best ways students learn through research. One of the popular theories, to this day, is the VARK model. This model identifies four types of learners: **visual**, **auditory**, and **kinesthetic**.

Most people are a combination of these three styles, but more times than not, they have a predominant style of learning. Each of these styles has a complementary way of teaching.

3.1 VAK model

3.1.1 Visual learning style

Visual learners are the individuals who prefer to take in their information visually - be that with maps, graphs, diagrams, charts, and others. However, they don't necessarily respond well to photos or videos, rather needing their information using different visual aids such as patterns and shapes.

The best way to present to visual learners is by showing them the relationship between different ideas visually. For instance, when explaining a scientific process, it can be done by using a flow chart.



Visual learners learn best when interacting with the information presented as visual images such as photos, graphs, diagrams, etc. These learners can quickly remember faces and places as they manage to recollect details by picturing them in their minds.

3.1.2 Auditory learning style

Auditory learners are individuals who learn better when they take in information in auditory form when it is heard or spoken. They are prone to sorting their ideas after speaking, rather than thinking ideas through before. Since, to them, saying things out loud helps them understand the concept.

Auditory learners learn best when information is presented to them via strategies that involve talking, such as lectures and group discussions. They can benefit from repeating back the lessons, having recordings of the lectures, group activities that require classmates explaining ideas, etc.



Auditory learners, often referred to as aural learners, prefer to learn via listening. By interacting with the material through listening to lectures, discussions, or even simply talking aloud to themselves, these learners retain information more easily.



3.1.3 Kinesthetic learning style

Kinesthetic learners are individuals who prefer to learn by doing. They enjoy a hands-on experience. They are usually more in touch with reality and more connected to it, which is why they require using tactile experience to understand something better. The best way to present new information to a kinesthetic learner is through personal experience, practice, examples, or simulations.

Kinesthetic learners, also known as tactile learners, learn best through experience. They tend to remember information through active exploration by movement, testing, experimenting, etc. The word “kinesthetic” itself refers to a person’s ability to sense position and movement, so they need to interact with that sense to understand and remember better.

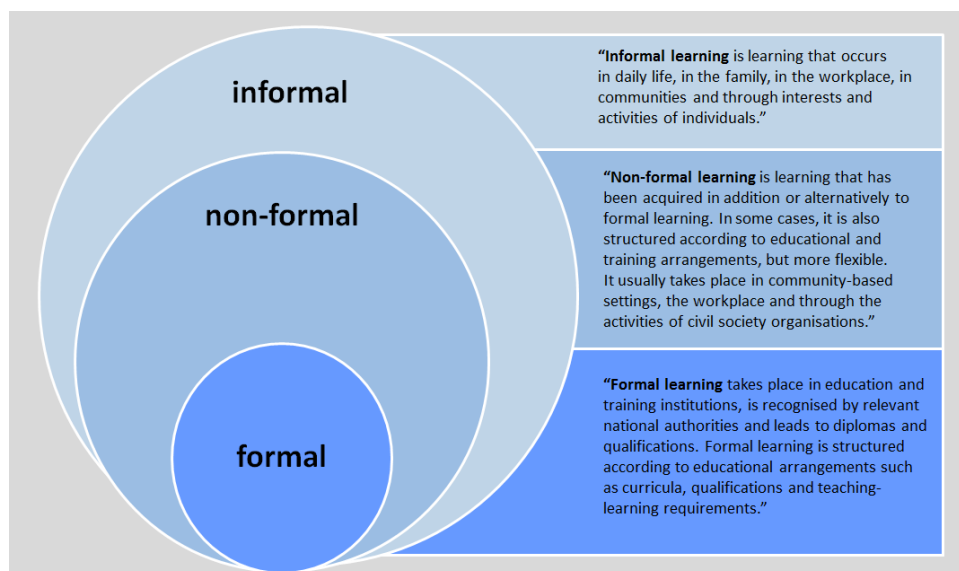


3.2 Formal, informal, and non-formal learning

There are several terms specifying different learning types, however the most wide-spread categories are formal, informal and non-formal learning, which are used frequently by professionals, education experts, researchers in a more or less consistent manner.

According to the classification of OECD we can specify learning characteristics as following:

- **Formal learning:** Intentional, organized and structured. Formal learning opportunities are usually arranged by institutions. Often this type of learning is guided by a curriculum or other type of formal program
- **Informal learning:** Never organized, rather than being guided by a rigid curriculum, it is often thought of experiential and spontaneous.
- **Non-formal learning:** May or may not be intentional or arranged by an institution, but is usually organized in some way, even if it is loosely organized. There are no formal credits granted in non-formal learning situations



Learning forms. Definitions by UNESCO, UNESCO Institute for Lifelong Learning 2012:8



Of course, the above are simplified categorizations. The lines between each type of learning are not so clear-cut, but these definitions can give a general idea of each type of learning.

Traditionally formal learning that takes place in a school or university and has a greater value placed upon it than informal learning, such as learning within the workplace. This concept of formal learning being the socio-cultural accepted norm for learning was first challenged by Scribner and Cole since 1973, who claimed most things in life are better learnt through informal processes, citing language learning as an example.

Informal learning is, by default, any learning that is not formal learning or non-formal learning. Informal learning is organized differently than formal and non-formal learning because it has no set objective in terms of learning outcomes and is never intentional from the learner's standpoint. Often, it is referred to as learning by experience or just as experience. Informal learning is a pervasive ongoing phenomenon of learning via participation or learning via knowledge creation, in contrast with the traditional view of teacher-centred learning via knowledge acquisition.

3.2.1 Formal learning

Formal learning is always organised and structured, and has learning objectives. From the learner's standpoint, it is always intentional: i.e. the learner's explicit objective is to gain knowledge, skills and/or competences.

Typical examples are learning that takes place within the initial education and training system or workplace training arranged by the employer. One can also speak about formal education and/or training or, more accurately speaking, education and/or training in a formal setting.



From the viewpoint of the education: formal education is organized, guided by a formal curriculum, leads to a formally recognized credential such as a high school completion, vocational certificate, diploma or a degree, and is often guided and recognized by government at some level.

3.2.2 Informal learning

Informal learning is never organised, has no set objective in terms of learning outcomes and is never intentional from the learner's standpoint. Often it is referred to as learning by experience or just as experience.

The idea is that the simple fact of existing constantly exposes the individual to learning situations, at work, at home or during leisure time for instance.

In case of informal learning there is no formal curriculum and no credits earned. The teacher is simply a person with more experience such as a parent, grandparent or a friend. A father teaching his child water the plants is an example of informal education, the mother teaching her children to bake bread.





3.2.3 Non-formal learning

Non-formal learning is somewhere mid-way between the first two types. Non-formal learning is the concept on which there is the least consensus, which is not to say that there is consensus on the other two, simply that the wide variety of approaches in this case makes consensus even more difficult.

Nevertheless, for the majority of authors, it seems clear that non-formal learning is rather organised and can have learning objectives.

Non-formal learning is a term covering various structured learning situations which do not have the level of curriculum, syllabus, accreditation and certification associated with 'formal learning', but have more structure than that associated with 'informal learning

The advantage of the intermediate concept lies in the fact that such learning may occur at the initiative of the individual but also happens as a by-product of more organised activities, whether or not the activities themselves have learning objectives. In some countries, the entire sector of adult learning falls under non-formal learning; in others, most adult learning is formal. Non-formal learning therefore gives some flexibility between formal and informal learning.

Even if it is only loosely organized - may or may not be guided by a formal curriculum. This type of education may be led by a qualified teacher, advisor or by a leader with more experience. Though it doesn't result in a formal degree or diploma, non-formal education is highly enriching and builds an individual's skills and capacities. Continuing education courses are an example for adults. It is often considered more engaging, as the learner's interest is a driving force behind their participation.

Examples for non-formal learning can be, community gardening programs or conference style seminars', non-credit adult education courses, professional conferences and continuing professional development. These learning activities typically take place naturally and spontaneously as part of other activities.

The learner's objectives may be to increase skills and knowledge, as well as to experience the emotional rewards associated with increased love for a subject or increased passion for learning.



3.2.4 Development of non-formal learning

The educational systems existing today in developed countries were built for the needs of a type of society and economy that has changed fundamentally in the recent years.

In the manufacturing and agrarian economies that existed 50 years ago, it was enough to master the "Three Rs" (reading, writing, and arithmetic). In the modern world the "Three Rs" simply aren't enough. If today's students want to compete in this global society, they have to possess a wide range of skills beyond the traditional "three Rs". They must be proficient communicators, creators, critical thinkers and collaborators (according to the terms of the United States-based Partnership for 21st Century Skills, the "Four Cs").

Students need to master additional subject areas, including foreign languages and social studies and Educators must complement all of those subjects with the "Four Cs" to prepare young people for citizenship and the global workforce.



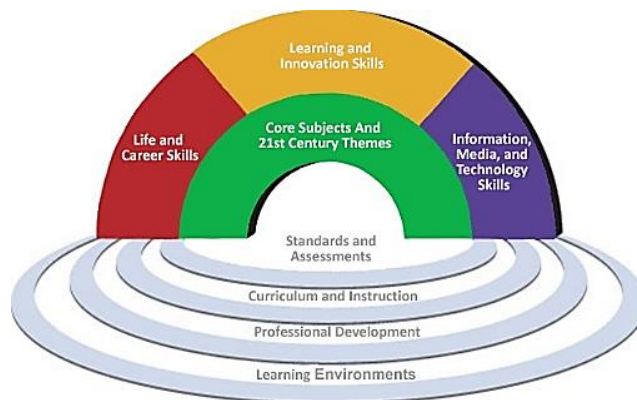
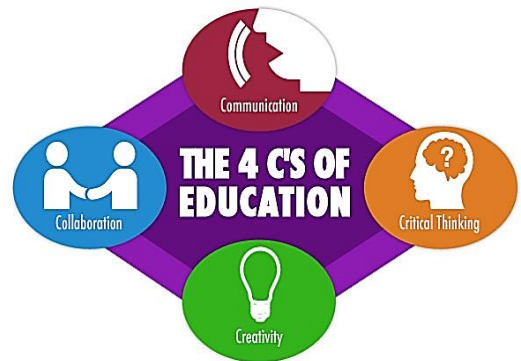


3.2.5 The 4 Cs of education in a larger context

The Four Cs of 21st century learning, also known as the Four Cs or 4 Cs, are four skills that have been identified by the United States-based Partnership for 21st Century Skills (P21) as the most important skills required for 21st century education: critical thinking, communication, collaboration, and creativity.

To help students develop creativity and critical thinking it is vital to give them activities where they have to use these types of skills. For example, project work or responding a question which needs creativity, cooperation and critical thinking. With all of the information that can easily be found online, **students no longer need to think of things, but think about them.**

This does not mean we do not have to learn the basic skills at all, although we have to learn and use them in a different way. Instead of passive learning and application of skills we can use them to create, collaborate, communicate, and use critical thinking.



The 4 Cs of education in a larger context

In 1996, the OECD education ministers agreed to develop strategies for **“lifelong learning for all”**. The approach has been endorsed by ministers of labour, ministers of social affairs and the OECD Council at ministerial level. The concept of **“from cradle to grave”** includes formal, non-formal, and informal learning. It is an approach whose importance may now be clearer than ever and non-formal and informal learning outcomes are viewed as having significant value. Policy-makers in many OECD countries, and beyond, are therefore trying to develop strategies to use all the skills, knowledge and competences – wherever they come from – individuals may have at a time when countries are striving to reap the benefits of economic growth, global competitiveness and population development.

3.2.6 Validation of non-formal learning

There are different approaches to validation of non-formal learning between OCED and EU countries. In the EU, validation is standardized through the European guidelines for validating non-formal and informal learning released by Cedefop (European Centre for Development of Vocational Training) in 2009 and 2015.





The document contains:

- basic validation features,
- conditions for developing and implementing validation,
- contexts - such as validation in education, training, enterprises and in the voluntary sector, and
- validation tools: tests and examinations, dialogue or conversational methods, Evidence extracted from work or other practice, etc.

The four phases of validation

Validation of non-formal learning activities can be of benefit to all citizens and help combat unemployment by improving skills matching and social cohesion. Validation can offer crucial support to the unemployed or those at risk of losing their jobs. Non-formal learning programs provide an opportunity to develop skills and gain practical experience in a short period of time, in the European Union countries, these programmes are regulated by adult education law.

According to the guidelines there are four phases of validation non-formal and informal learning:

- **Identification** of an individual's learning outcomes acquired through non-formal and informal learning;
- **Documentation** of an individual's learning outcomes acquired through non-formal and informal learning;
- **Assessment** of an individual's learning outcomes acquired through non-formal and informal learning;
- **Certification** of the results of the assessment of an individual's learning outcomes acquired through non-formal and informal learning in the form of a qualification, or credits leading to a qualification, or in another form, as appropriate.' (Council of the EU, 2012, p. 3, points 2a to 2d).



4. ORGANIZING TRAINING COURSES

Organising training courses is a complex process, so preparation should be started in due time. Always choose a topic / subject that can really help the participants in the training. The success of the training can be greatly influenced by the routine, mobility and communication level of the team.

4.1 Steps for Preparing Training Courses

The following questions should help you to prepare a successful training program.

4.1.1 1st Step: What is your target group?

The effect of your training will depend on whether you address the right group of people in the right way. Therefore, you should first consider your target group: To whom do you want to address the training? How can you make sure that these people are participating? What is their motivation to participate?

Also, think of what is the maximum number of people you can handle in the training. The more participatory the training is, the less participants can be admitted. In case you have to select from a larger group of participants, you should think about the selection procedure and criteria.

4.1.2 2nd Step: What are the objectives of the training?

Once the target group is clear, the next step is to define what you want to achieve with the training. Which kind of knowledge, awareness and skills do you want to develop among the participants? Is it the same as what the participants want to learn? During the training, but especially towards the end of a course, you should check whether these objectives have been reached. The participant's opinion can be assessed with simple evaluation or feedback methods.

4.1.3 3rd Step: Which topics should be covered?

Next you should think about the topics which must be tackled in order to achieve the training objectives. Arrange the topics in a logical order so as to help the participants find their way through the training. Is it possible to include the participant's expectations and wishes?

When selecting the topics you want to cover in a specific session, first think about what is your main message and what are the important points the participants **MUST** know. Do not try to be complete, but relevant. The participants will not keep more than a few points per session in their memory. Therefore, repeat your main points time and again and structure your session around them. Use illustrative examples to reinforce your main points.

4.1.4 4th Step: Which training methods should be used?

How can the selected topics and the lessons learnt be most efficiently transferred to the participants? Speech is an important method of transferring knowledge, but people learn more efficiently if they not only hear but also see, feel, experience and discover new things. A sound mix of different training methods can therefore help to make the training more effective and interesting. For many topics, the trainer will not have a readymade solution at hand, but ideas and solutions must be developed together with the participants. Find ways in which participants can contribute their own experience and interact



in the training. Also, think of other resource / key person persons or advisors who can cover a certain topic.

The effectiveness of the course is very much influenced by the methodology.

$$\text{RESULT} = \text{METHODOLOGY} * \text{KNOWLEDGE}$$

It can be interpreted as multiplication $M * K$ if one of the zeros, is the course will be ineffective.

4.2 Developing a Training Schedule

Appropriate Timing

When planning the training schedule, keep the following points in mind:

Participants won't listen to you for more than 25 minutes.

Break the monotony with visual material, exercises, stories, contributions of participants, ice breakers, jokes etc.

Plan for sufficient time and stick to the timing you have promised.

If possible, avoid lectures or presentations directly after lunch! Schedule exercises, games and excursions instead to make participants move.

Preparing a planning sheet and schedule

Thorough planning of topics and their timing in the available training period is a must.

In this training, topics were selected according to the specific needs of the target group. Schedules should be presented in the beginning of the training and adapted according to the feedback of the participants.

The training room/environment

When selecting and preparing the training room, keep the following points in mind: Can anyone see and hear the resource person? Is there sufficient space for interaction and group work?

Are presentation aids available? such as: slide projector, video, flip charts, black board, pin board etc.

Are there a sufficient number of chairs, brochures, pencils and tables available? Don't get distracted by anything.

Seating arrangements

The way in which chairs and tables are arranged in the class room can have a considerable influence on the training atmosphere. The typical classroom arrangements can make participants feel being spectators of an event in which they are not really involved.

In the training approach of this manual, group work is an important element of the training. Seating arrangements should allow participants to be comfortable during classes. In order to avoid wasting time moving chairs and tables around, arrangements should ideally be made in a way allowing both lectures and group work sessions. We recommend that you arrange the room previous the training start.

Training aids

There are sophisticated aids available for presentations, but good training courses can also be arranged using more simple facilities. Below is a list of some typical training aids. It can be used as a checklist when preparing for the training course.



- Slide projector / Video projector (if suitable videos are available)
- White or black board with suitable chalk or pens
- Large paper sheets or flip charts
- Pin board to attach paper sheets
- Coloured paper cards
- Marker pens, transparency sheet pens
- Glue sticks, scissors, tape, pins
- Materials for demonstration (soil samples, plants, photos etc.)
- Selected books and reading material

What Trainers Should Know About Training

The following paragraphs are adapted from „Participatory Learning and Action“, Pretty et.all and „Agricultural Extension“ LBL, two excellent documents on training and didactics.

Part of the nature of education is that it is a continuous process. People not only learn in seminars and courses, but also from their environment and their relationships. Besides knowledge and understanding, they gain skills, habits and values.

Youth education in our context has two general aims which are closely linked to each other:

- **Creating awareness:** development of the consciousness and personality
- **Facilitating action:** transferring new knowledge, skills and methods

Assistance in problem solving

If youth education is to be effective, it must assist the participants in solving problems. As a first step, training should support the participants in understanding the problem/situation. For this it can help to compare the problem with a similar problem of others, e.g. in a case study. By strengthening the participant's feeling of self-esteem, one can initiate the second step in the learning process: the identification of an appropriate solution to the problem.

Besides introducing new ways of solving the problem, the trainer should also help to assess possible consequences of actions and offer assistance in making decisions.

Youth learn in a different way to children. As we grow older, it is more difficult to store new information in our long-term memory. Therefore, the words of a lecturer may end up overwhelming listeners and will not be digested. It can only last if the trainee internalises the new knowledge and makes it their own.

4.3 Tips for Youth teaching

1. Get to know young people participating to the training, their habits, where to find them, who they communicate with, who they listen to. This is how you can reach them
2. Choose the motivated ones. Give them respect, tasks, recognition. Treat them as partners!
3. You should be motivated, conscious and energetic. Show commitment so you can be a positive role model.
4. Have a common goal. Build a team, a community that feels good to belong to
5. Maintain interest throughout. Show only the important, useful and good examples!



4.4 The Importance of Motivation

Unless motivated, participants will not and cannot learn. The participant's initial motivation to attend the training is very important. There are many reasons why participants are not particularly motivated or have lost motivation. For example:

- they attend the workshop only because they have been told to do so while it is against their personal wishes;
- their minds are elsewhere, e.g. with the pile of work mounting up in their usual work place;
- they have been taught all this before and feel they already know it;
- they have misconceptions about you or your organisation.

The above-mentioned points show the importance of addressing the appropriate target group, selecting suitable participants and informing them clearly about the aims and contents of the training.

On the other hand, you should know about the participant's motivation and expectations in order to address them in a suitable way.

If you want your training to be effective, you need to motivate the participants over and over again. Make the participants interested, awake their curiosity by telling a story, encourage them to reflect and ask questions, make them feel that they are experts who can contribute with their experience etc. Equally important is that you avoid motivation killers' like providing ready-made solutions, giving orders, using threats („ ***If you don't do it my way then...***"), moralising or lecturing, ridiculing participants, not keeping your word etc.

Good preparation is crucial for a successful trainer. This includes:

- Sufficient knowledge on the topic
- Adequate preparation of the training structure and contents
- Elaborating appropriate and interesting training materials
- Proper organisation of logistical arrangements

The following questions may help to address some principles of a successful trainer:

Some principles for trainers	Some questions
Direct the education at clearly defined target groups	Whom do I want to address?
Tackle relevant problems	What are the target group's main problems and aims?
Indicate clearly what are the aims and contents of the training.	Are the participants convinced that the training is relevant for them?

In order to be successful, the social skills of a trainer should not to be neglected. These include:

- A warm and open personality;
- Showing appreciation of the participants;
- The ability to bring the group together;
- Enthusiasm for the subject area and an ability to transfer it to the participants;
- Readiness to admit own knowledge gaps, openness to listen and to learn;
- Flexibility to respond to the participants needs;
- Ability to communicate in an interesting way (being a good story teller);

Creativity in inventing interactive elements and practical exercises.



4.5 Teaching or Facilitating?

What is your role as a trainer in adult education? On the one side, a trainer can be a person transferring his knowledge and experience to the participants by telling them about it. On the other side, a trainer can facilitate the learning process the participant is going through during the training. There are two general models of a trainer, i.e.:

- **The lecturer:** share knowledge, reveals subjects, explains the context, shows examples, creates awareness;
- **The facilitator:** asks challenging questions, creates an atmosphere of learning, provides the opportunity for positive experience, promotes the participants self- confidence.

In practical training courses you will probably have a combined role. For some issues it will be necessary to give theory lessons. However, try to limit your lectures to a maximum of 20 minutes each, followed by an interactive part. In the beginning of a training, explain to the participants how you see your own role.

Below you will find some training methods which should help you to motivate participants in the course and give them an active role in the learning process. Which method is most appropriate for a specific objective will depend on the target group as well as on the personality of the trainer.

Introduction Round

Objectives and Application

In order to build up a team spirit, but also to make participants feel their active participation is taken seriously, a short introduction toward the beginning of the training is virtually a must. If you ask the participants not only to give their name and background, but also their motivation, expectations or doubts concerning the training, you can serve two purposes.



Implementation

Prepare a board or chart with some possible objectives on the one side and doubts concerning the training on the other side. Each participant gets a limited number of stickers (2-3 coloured points or similar, if not available, marker pens will do).

Ask the participants to introduce themselves by giving their name, organisation, profession, origin or whatever information appears relevant.

Directly after the introduction, the participant can place their stickers on the objectives and doubts which they find most important.

Each participant can then explain in a few words why they made this choice.

Alternatively, instead of objectives and doubts you can write down statements concerning organic farming which express a certain attitude. The participants can state their agreement with the statements by pinning their points (two colours, one for agreement, one for disagreement) to the statements accordingly.

Rules

No participant gets more than 3 minutes to speak.

Participants make their own choice about where to place the two votes.

Resource persons follow the same procedure of introducing themselves as participants.

Using cards and stickers for identifying the objectives and interests of participants



Brainstorming

Objectives and Application

The objective of a brainstorming session is to collect as many ideas and as much information as possible related to a specific topic. Participants are encouraged to let their ideas flow freely, getting inspiration from previous ideas. The creative flow of ideas should not be streamlined or influenced in any way. No idea, however crazy, should be rejected. Brainstorming can be used whenever ideas or information of a yet undefined field needs to be identified.



Implementation

Inform the participants about the aim of the brainstorming session Prepare a board or paper chart visible to all participants.

Write the central topic or question on the board Appoint one or two recorders who note down the ideas. Fix a period of time for collecting the ideas (10 - 15 min.)

Ask the group to call out their ideas one by one, following the rules The recorder(s) note(s) down each vote randomly spread over the board Allow requests for clarification and questions concerning the ideas Discussing the result, building groups of ideas, evaluation conclusions.

Keep absolute silence during the brainstorming, no questions, no comments. Only one idea per vote, not more than 3 words per idea, no any other explanations. For giving an idea: stand up, speak clearly, sit down. If some participants place one idea after the other while others do not dare to speak you may interfere and encourage the silent ones.

Work Group

Objectives and Application

Whenever a topic needs to be elaborated by the participants themselves, but it is too complex to do it in the plenary, a group work can help. It also allows division of tasks and therefore an efficient process. In small groups, participants have more occasion for interaction, it involves them more than plenary sessions, they make the training more vivid and give the resource persons the chance to get some rest.



Implementation

Forming groups can be done in various ways:

Randomly (counting, distributing numbers or colours): mixes people and ensures exchange

Homogenous groups (region wise, gender, background etc.): allows identification of a specific stakeholder's point of view and prevents some participants dominating others (e.g. scientists dominating farm women)

With free choice of the topic (assign topics to locations or tables, participants move there): each participant can deal with the topic they are most interested in

According to the seating arrangements: saves time, but does not mix people.

The option which is most appropriate will depend on the purpose of the group work as well as the composition of the group.



The groups should be provided clear instructions on their task. These can be given in an oral introduction, in writing on task sheets, with the help of group facilitators who have previously been instructed, or with a combination of the above. It may help if the resource person goes from group to group to see whether questions come up or to help groups who are lost with their task.

Sharing the results of group work

Objectives and Application

When delegating tasks to groups, the results will need to be presented to the plenary in the end. These presentations should enable each group to share their ideas and honour their contribution. At the same time, the presentations should also be interesting for the audience and therefore should avoid endless monologues and repetitions.



Implementation

Each group documents their main points in a few words on flip charts or transparency sheets

Each group selects a speaker who prepares the presentation

If the groups have got different tasks, each should be given equal time and attention for their presentation (it is wise to strictly restrict the time per group).

If all groups have the same task and topic, you can avoid repetitions if the first group does a complete presentation and the following ones restrict themselves to the points which have not been mentioned.

At the end of each presentation ask for questions and feedback from the audience.

At the end summarize and comment on the results.

Participant's Contributions

Objectives and Application

Adult participants are experts in their respective fields, and many will bring a lot of practical experience and knowledge with them. Utilizing selected participants as resource persons for specific topics allows you to draw on relevant practical experience, make the participants really feel involved and valued and last but not least add some variety to the lecturing and some rest for the trainers.



Implementation

Select topics in the training schedule which can be delegated to participants (or external resource persons).

Or find out whether some participants have special knowledge or experience in one field, and see whether you can integrate their topic into the program.

Ask the concerned participant whether they would be willing to prepare a contribution on the selected topic.

Clearly agree on the objective and scope of the contribution, especially on the exact contents, messages, means of presentation and time frame.

Make sure that the contribution fits into the overall concept and structure of the training.

Using Cards

Objectives and Application

Continuous visualisation of results during a group process can help to make the process clearer and more efficient. Paper or cardboard cards are a handy tool for collecting, structuring and documenting elements of a complex topic or task. Pinned to a larger chart, they have the advantage of being able to be re-arranged in the process as needed. Cards of different colours, sizes or shapes allow inclusion of additional types of information.

Implementation

Prepare paper or cardboard cards of different colours and of appropriate size (min. 10 x 15 cm).

Provide a sufficient number of marker pens, pins or removable glue sticks. Introduce the group to the objective and expected outcome of the task.

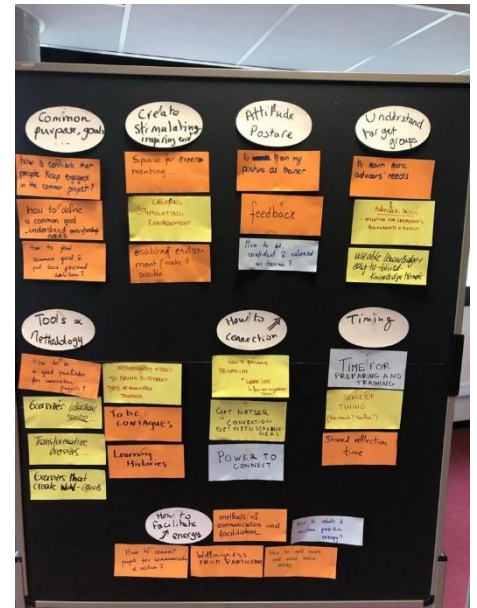
If appropriate, give an example or provide a template for the structure. Associate the colours and shapes of the cards with attributes or categories.

Ask the group members to note down elements of the overall structure on the cards, keeping in mind the significance allocated to the colours or shapes.

As soon as a group member has noted down an element, the card should be pinned to the board.

Once the board gets filled, single cards will need to be re-arranged, altered or replaced.

When the structure seems to be final, ask the group to check its logic and completeness again and then permanently fix it to the chart. Let the groups present their charts to the audience.



Rules

Cards should be readable from at least 3m distance.

Only one idea or topic per card.

Cards should only be removed with the consent of the person who wrote them.

Role Plays

Objectives and Application

In role plays, participants use their own ideas and experience to play defined real-life situations. Role plays can help to better understand the attitude of stakeholders in a complex situation or conflict, or to analyse how things are happening and why. They can also be used to exercise a practical procedure after learning it in theory. Role plays are quite exposing for the actors, and therefore will only function well if there is a certain team spirit and atmosphere of trust.

Implementation

Define the objective of the role play and the tasks of the actors.

Prepare the „stage“ and the necessary properties and select actors for the play and clarify their role.

Ask the observers to note down their observations, possibly giving them certain points to focus on.

Introduce the role play and let it start.



Ask the actors what they observed or felt during the role play.
Ask the observers what they noticed.
Summarize and conclude the lessons learnt.

Rules

Respect a person's dignity, prevent participants losing face A role play must be concluded with a debriefing, allowing the actors to talk about their observations and feelings.

Panel Discussion

Objectives and Application

Some issues related to regenerative agriculture will provoke conflicting attitudes. Discussions can help to form personal opinions considering different points of view. In a panel discussion, selected stakeholders representing different attitudes to the issue are given the chance to share their ideas in front of the audience. The discussion is guided by a mediator who addresses questions to the single panel members. In a second part, the audience gets the chance to address questions to the panel members.



Preparation

Define the topic of the discussion as clearly and specifically as possible.
Identify the different groups of stakeholders in the issue.
Select people from the participants or outside representing the stakeholder groups.
Prepare questions which you want to address to the panel members, leading them through the different aspects of the topic address them and explain the procedure of the panel discussion.
Prepare the panel: chairs, name plates (mediator seated in the middle), refreshments.

Implementation

The mediator introduces the topic of the panel discussion, presents the panel members, explains the procedure and the rules (ca. 5 min).
The mediator addresses specific questions to the single panel members (ca. 20 min).
The audience may address specific questions to single panel members (ca. 20 min).
The moderator summarises the results of the discussion and concludes.

Rules

Each panel member gets about equal total time to speak; the mediator is entitled to cut off long speeches.
Stick to the topic; the mediator is entitled to interrupt and to turn down questions which are off the topic.
No personal offences.
Questions from the audience: only one question at a time, no mere statements.
Arrange a meeting with the panel members, get to know about their background, inform them of the questions you plan to address, to whom you plan to.



Peer to peer

Objectives and Application

Aim of the trainings is to develop and test a unique combination of peer-to-peer. During face-to-face events youth will work in pairs on different tasks and problems connected to their own daily farming routine.

Implementation

The pair-mentoring method is a new form of cooperation in which, from their own perspective, the parties help each other. It is crucial that couples have different knowledge of the situation. Mentoring pairs interact primarily on the basis of mutual learning, regularly sharing their recent and past experiences.

Rules

The couples organise themselves on a voluntary basis but with a view to ensuring that their skills are strong in different areas.

Visits to Demonstration Farms

Objectives and Application

When dealing with farming, nothing can be more efficient, convincing and long lasting than practical exposure to farming. The visit to a demonstration regenerative farm will allow participants to combine theory with practical experience and associate the lectures with the problems and conditions of real-life situations. At the same time, study trips will bring a change to the trainees group monotony and for this reason are best placed in the middle of the training program.



Implementation

Select a suitable farm and check the farmer's willingness to contribute. Inform the farmer on what their role will be and whether you want to engage them as a resource person.

Prepare logistics, transport, tools and food, if needed.

Inform the participants of the purpose and schedule of the trip. Start with a farm walk, if possible guided by the farmer who explains their production.

Give the participants a chance to interview the farmer.

Discussing the observations and conclusions.

Recommendations of the group to the farmer? Feedback to the farmer.

Rules

The farmer and the farm should not be affected.

Give the farmer a role. She/He should show her/himself that he has achieved her/his goal.

Keep the group together, or split them into sub-groups if too big to handle.

When moving around, wait until all group members follow up and make sure that everyone can hear the „guide/speaker“.

Thanks to the farmer for her/his work, with words or with gifts.

ONLY BEST PRACTICE SHOULD BE INTRODUCED



Getting Feedback from the participants

Objectives and Application

In the end of a training program, the trainer should get feedback from the participants in order to be able to further improve the program. It is also a good occasion for the participants to recollect what they have learnt and to make their own conclusions about the program.

Two methods to get feedback from the participants are described below:

Questionnaire

Prepare a questionnaire which participants can fill in anonymously, e.g. by validating the quality of certain aspects on a scale from 1 to 5 (or from bad to very good). Points to evaluate could be:

- Appropriateness of the topics; which topics are missing?
- Practical relevance of the lessons learnt
- Valuation of single sessions
- Appropriateness of the schedule and timing
- Competence of the resource persons
- Preparation of the course
- Quality of the handout and course documents
- Degree of interaction with the participants
- Course facilities

Brainstorming on lessons learnt

Let the participants recall the lessons they have learnt, the answers they have had and the conclusions which they have made. For this, prepare large paper sheets on which you note the topics covered in the training, and the single sub-chapters or sessions related to the topic.

Divide the participants into groups and equip each with a topic sheet, small paper cards of one colour per group, marker pens and glue pens. The members of each group should brainstorm the conclusions they have come to during the training, note them down in keywords on the paper cards and stick them to the respective point. After a few minutes, all paper sheets should rotate to the next group which will then do the same exercise on the new topics. Once all the groups have finished with all the topic sheets, fix the sheets to the wall and discuss the results with the participants.

It is always useful to conclude the training with an open discussion in which all participants get the chance to provide their personal feedback to the trainers. Suggestions for improvements should be noted down in order to use them for organising further training programs.





Living Lab

Objectives and Application

The Living Lab has an important role in informing farmers, developing and disseminating innovative good practices.

A Living Lab, in contrast to a traditional laboratory, operates in a real-life context with a user-centric approach. The physical and/or organisational boundaries of a living lab are defined by purpose, scope, and context. The scope, aims, objectives, duration, actor involvement, degree of participation, and boundaries of a living laboratory are open for definition by its participants.

A living laboratory could thus be established in a garden, in a farm or within a regenerative agriculture related organization.

The following elements tend to be core features of a living laboratory:

- Experimental approaches in real-life context
- Participation and user involvement
- Collaboration and co-production of knowledge



From a methodological perspective, today's living labs are networks composed of heterogeneous actors, resources, and activities that integrate user-centred research and open. From the infrastructure perspective, they can be seen as facilities that enable experimentation and co-creation with users in real-life environments.

There are four types of living labs: Utilizer-driven, Enabler-driven, Provider-driven, and User-driven. As part of a EU-funded project with a regional concept, the SEEDS living labs fit the Enabler-driven model, characterized by:

- Strategy development through action
- Building of a network around a region/project
- Collection and use of information and co-creation of knowledge within the network
- Guided strategy changes in a preferred direction

Even though each living lab is unique, there are suitable methods and processes to use throughout the construction and operation of a living lab. These seek to support greater understanding of complex problems, prototyping, validating and refining solutions.

Preparation

Define the living lab topic and location as clearly and specifically as possible.

Identify the different groups of stakeholders in the issue.

Select people from the participants or outside representing the stakeholder groups.

Implementation

When approaching complex challenges that exist in an evolving real-life context it becomes very hard for a single actor to find the right solution. By collaborating and co-creating the solutions with end-users and other actors involved, the complexity and uncertainty is reduced and the chance of finding a sustainable solution is increased.

The core of the Living Labs are the created Regional Strategy Platforms, correlated with organizing of transnational horizontal partnership and the professional network universities – R&D institutes - associations - Youth council - stakeholders within EU and MENA region, permanently offering



information about the latest achievements in new methods of training and will get skilled in the fields of Regenerative Organic Agriculture, Smart Farming, Agriculture Low-cost Renewable Energy Sources Solutions and Climate Change Assessment.

Living labs with network structures based on extensive knowledge and information exchange and collaboration between multiple actors lead to radical innovations, while living labs with centralized network structures tend to achieve more incremental innovations.

Living Labs will be organised as Pilot Demonstrator, built on the base on acquired knowledge inside the trainings and will give the chance to the youth with lower opportunities to settle down the entrepreneurship skills.

The components of a Living Lab are ICT and Infrastructure, Management, Partners and Users, Research and Approach. At the centre always is innovation.

- ICT & Infrastructure outlines the role that ICT technology plays to facilitate new ways of cooperating and co-creating new innovations among stakeholders
- Management represents the ownership, organization, and policy aspects, a Living Lab can be managed by e.g. consultants, companies or researchers
- Partners & Users bring their own specific wealth of knowledge and expertise to the collective, helping to achieve boundary spanning knowledge transfer
- Research symbolizes the collective learning and reflection that take place in the Living Lab. Agricultural research partners can also provide direct access to research that can benefit the outcome of a technological innovation
- Approach. Represents the methods and techniques for Living Lab practices which are necessary for professional and successful Living Lab operations.

How do I reach farmers?

Look for partners among Agricultural Knowledge and Innovation Systems - AKIS actors who can help you network.

Show them why they should join, why this is useful and benefic to them:

- Designing, implementing, evaluating and managing on-farm experiments, discussing the results establishes close links between farmers, processors, researchers, breeders, traders and distributors, i.e. the entire product chain.
- Mid-year meetings, field events, tastings and workshops provide opportunities for community-building.
- Through dialogue between sectoral actors, professional information is made directly accessible to participants.
- Shared experiences and expertise are multiplied.
- The solutions developed and tested will directly contribute to the development of the domestic agricultural sector.

Rules

Find a network

Present only good practice

Always show what is topical, what will attract a lot of interest



Entrepreneurs Incubators

Objectives and Application

The SEEDS Entrepreneurs Incubators are designed to help startup businesses grow and succeed by providing free mentorship, expertise and access to potential investors, contributing to the development of small businesses ran mostly by the young ladies in agriculture. Also, SEEDS Entrepreneurs Incubators will help young people to offer solutions for modernize their farms by giving them the knowledge and the skills necessary to design and to make their own farm equipment that uses renewable and free energy sources.

Based on the definition, you can already see some of the pros an incubator can provide to businesses to help for a powerful start. Make sure to research potential incubators carefully to be sure they provide the following benefits:

- access to benefits that can help accelerate the future business, including services, mentorship, expertise, influence, and sometimes capital. Incubators may also offer business development programming such as workshops and panel discussions.
- make sure investors can trust the incubator, in order to invest in the right start-ups and groom them into successful businesses. Creating this type of incubator will give an advantage when seeking funding
- the structured environment and curriculum of an incubator can help a new business keep focus and grow in the right direction.

Implementation

Learning supplemented by an experimental approach (Entrepreneurship and Business Plan education) and development of technical skills for innovative healthy farming solutions inside Regenerative Agriculture Entrepreneurs Incubators will entitle trainees for YOUTH PASSES.

Not all incubators are equal; some provide more or better benefits than others. Here are some potential downsides:

- The application process to join an incubator have to be rigorous and competitive. For most incubators, an applicant is required to submit a detailed business plan and disclose all business activities.
- Many incubators require a time commitment of around one to two years, plus adherence to the schedule set by the incubator, which can include many trainings and workshops.
- For better or worse, an incubator is a professional environment. Members can't simply come and go as they please, and they'll be expected to answer to someone other than yourself in regards to your progress. Think of an incubator like a boss who is invested in success.

As you can see, the benefits can be great for the right applicant. Make sure you are willing to dedicate yourself and your time to the program of creating an incubator in order to reap the rewards.

INCUBATOR PERKS

The incubator's offerings have to match to future regenerative agriculture farmers, existing ones which want to substantially improve their existing ones and/or agriculture advisors. Express clear what resources and services the incubator provides. State the incubator's mentors and advisers to disseminate their expertise, skills, and networks matching to the member's needs.



INCUBATOR CURRICULUM

The SEEDS Entrepreneurs Incubators should require rigorous training and have strict schedules. Prepare the curriculum to make sure it teaches what members need to learn in order for their business to succeed. Make sure you can take it all on while still running daily operations.

INCUBATOR TRACK RECORD

How have similar businesses performed with the support of the incubator? If possible, create an alumni for their take on the experience. Most incubators list graduate companies on their websites.

Each partner from MENA countries have to maintain the Experimental Entrepreneurs Incubator and the related Training centres for a period of minimum 3 years after the project closure and further develop the non- formal learning and training, at their facilities, for Youth and organize the Regenerative Smart Farming Camp in continuation.

All project partners will remain in tight cooperation with the enlargement of the SMART farms and also beyond the consortium (through Regional Strategy Platform) and will produce their products according to the requirements of potential customers, having a common approach also to the Fair-Trade network - the sale channel where the youth products can be offered.

The SEEDS consortium will permanent maintain and update the Open Educational Platform for all other interested partners also with the SMART farms visits – educational and training on the spot for Youth and workers with Youth.

Lessons to be learnt

Motivation

Ask the participants: How would you define „Regenerative Agriculture/Pesticides“? Note down the suggestions in keywords on a board, discuss. Come back to the notes in the end of the session and check whether the participant's understanding has changed.

Alternatively, you can put some possible definitions on the board and let the participants give their preference and comments one by one. For this, each participant gets two stickers (pens will also do), a green one and a red one, which he or she can stick to the definitions. Green shows agreement with the selected definition, red disagreement. While placing their stickers, participants shall explain their choice.

Conclude by rating the definitions according to the result of the evaluation.



Structure of the Agricultural Knowledge and Innovation System (AKIS)

The Agricultural Knowledge and Innovation System (AKIS) is a system that connects people and institutions to promote mutual learning and to produce, share and use technologies, knowledge and information related to agriculture. The system integrates farmers, advisors, educators in agricultural education, researchers and other actors who generate, share and use knowledge and information from different sources to operate and develop the agricultural sector.

To a large measure, the regional success of a project depends on how well we know the economic and social context of the country. There are several steps of getting to know the country specific. This is why we decided together to collect AKIS specific data in this regard in the Analyse of Needs in participating MENA countries.

That was made based on the following points, in order to give us a complete picture of who and what. Also, it is worthwhile to develop professional contacts in order to develop the most effective methods.

Suggested structure AKIS report:

1. Main structural characteristics of the agricultural

- General information about the country
- Economic performance, investment
- Digital society
- Education
- Labour market

2. Presentation of the country agricultural sector

- Reports, data, lessons learned

3. Identify the following actors in the country

- The actors of AKIS: farmers / food producers, advisors, researchers, agricultural producer organizations as well as governmental and nongovernmental, organizations, in-school and out-of-school educational institutions, networks, media, other services, etc., i.e. all those who produce or build the knowledge.

4. AKIS actors and knowledge flows (functions, tasks, impact on the system, etc.)

5. Production Quality control and certification

6. Agriculture Policy framework at national level

7. Agriculture Advisory services

8. Agriculture approaches

- Regenerative and organic agriculture
- Precision Agriculture
- Innovations in agriculture



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