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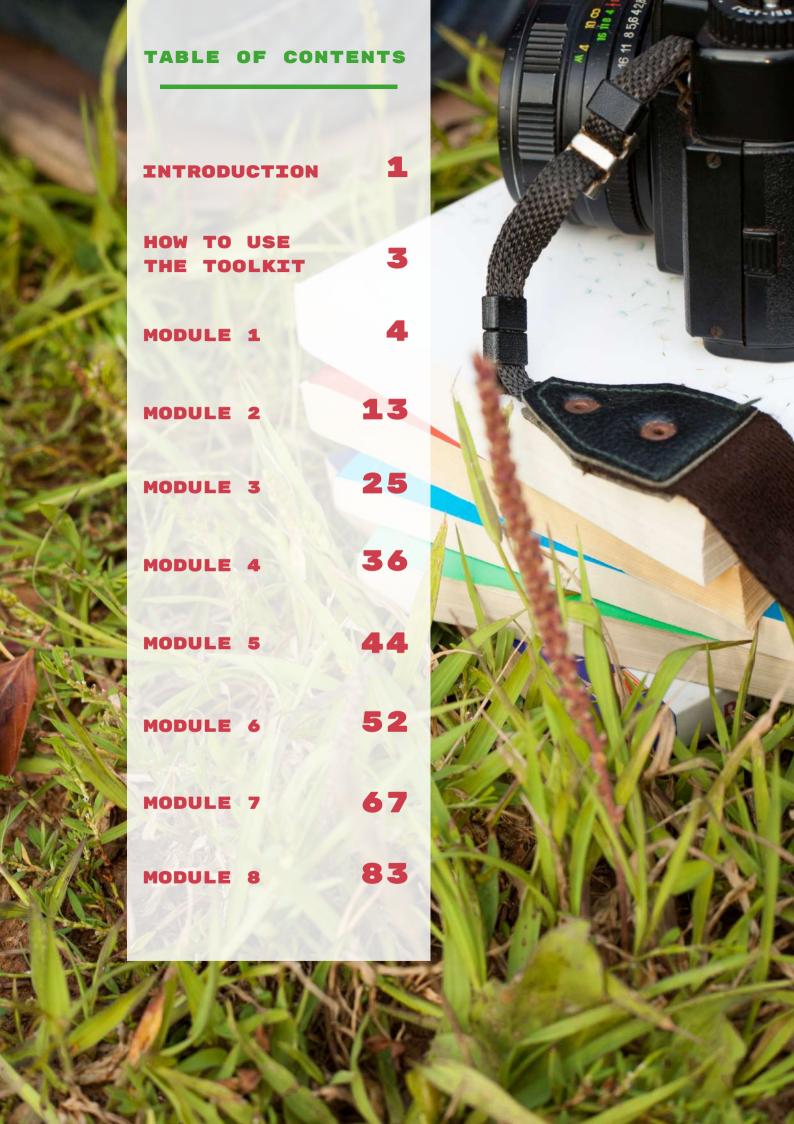
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Project: "OUTSIDE- Open commUniTies for Sustalnable DevelopmEnt" Nr. 2020-1-IT02-KA201-079803



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ENVIRONMENTAL EDUCATION THROUGH OPEN-SCHOOLING: THE OUTSIDE PROJECT

OUTSIDE aims to empower both students (aged 11-16) and teachers as change agents in their local communities. The competencies that today's students need to succeed in their careers can be hardly developed within traditional curricula.

These competencies involve:



green competencies 🎢



sustainability



entrepreneurship



creativity

The specific objectives of the project are:

- enhancing the acquisition of innovative skills through the creation of entrepreneurial projects based on sustainable development
- promoting environmental and sustainable development education through the integration of the 17 SDGs into the relevant education systems
- boost the involvement of "Open Community of Learning" (schools, institutions, third sector, civil society and business world of the local community).

OUTSIDE is based on a 3-step methodology:

Phase 1: OUTSIDE THE CLASSROOM

Mapping the environmental needs, interests and opportunities of the local communities.

Phase 2: THINK OUTSIDE THE BOX

Identification of green business ideas.

Phase 3: GO OUTSIDE

Turning environmental issues into business opportunities.

THE PROJECT RESULTS

This Toolkit is the first result of the OUTSIDE Project. The Project foresees the realization of 4 results:

TRAINING TOOLKIT FOR TEACHERS



The Toolkit will explore the main topics behind the OUTSIDE project:

- Outdoor learning
- Open-schooling
- Sustainable development
- Entrepreneurship education.

ONLINE RESOURCE CENTRE

Our interactive platform will help both students and teachers develop the business ideas. It will also enhance the involvement of the local OCLs and their active role throughout the project.



COLLECTION OF OUTSIDE BUSINESS PROJECTS



It will contain the results of the pilot action tested by the young people, consisting of the entrepreneurial projects of environmental promotion and sustainability developed during the piloting.

COMPETENCE FRAMEWORK

Starting from the results of the experimentation in school, the Framework will define the skills needed to develop entrepreneurial mindset, with a particular focus on environmental sustainability.





FROM THE RESEARCH TO THE TOOLKIT

The "OUTSIDE Toolkit for TEACHERS: Environmental Education through Open-Schooling" is the first result of the Project. The main purpose of the Toolkit is to guide teachers in implementing the three steps of the OUTSIDE methodology.

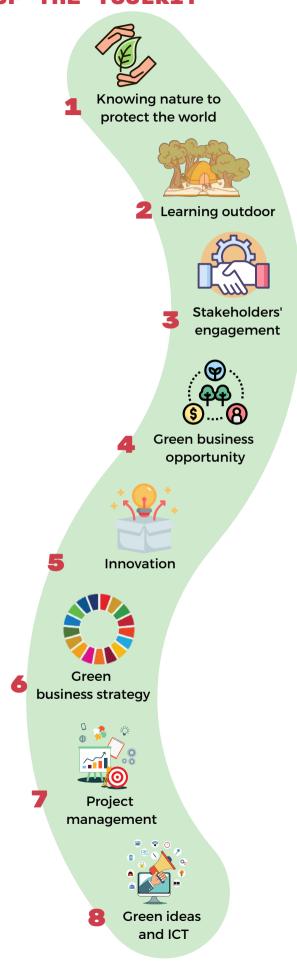
Based on the result of both phases of the research, and on the study of the training offer and needs, we drafted a preliminary syllabus for the training modules that we later created, and developed that are now incorporated in the Teacher Toolkit. On the column on the right-hand side, you can see the 8 modules that have been developed and that teachers will be able to explore inside this toolkit.

The development of the OUTSIDE Toolkit took place in different stages. Starting from a desk and field research, we observed common lacks and needs in the three piloting countries and in particular:

- there is a general growth of outdoor learning: opening of forest schools, new programs on environmental education and networks on outdoor learning are blossoming, but the creation of outdoor activities in schools remains a choice of the single teacher, and often as a one-off event:
- entrepreneurial education is still missing as a real component of the school curricula, and it is almost never linked with sustainability. Moreover, the EntreComp framework is hardly never considered as a reference in the training offered in the countries analyzed;
- despite the implementation of several reforms and efforts put in place, there has not been an institutionalization of subjects such as outdoor learning, sustainable development, and sustainable entrepreneurship in the school curricula.

According to the needs identified and the gaps observed both during the desk and the field research, the OUTSIDE consortium developed this Toolkit that intends to respond in an effective way to teachers willing to apply environmental education through the openschooling approach that will result in the creation of sustainable green projects designed by students.

THE TRAINING MODULES OF THE TOOLKIT







MAKING THE MOST OF THE OUTSIDE TOOLKIT

The Toolkit, together with the training material, which can be adapted, updated and expanded by interested users, includes a valuable learning package ready for future use by teachers and educators but it represents also an interesting resource for learning communities and interested organizations. The training content is based on open educational resources (OERs) that partners have developed and selected according to the learning objectives and outcomes to be achieved for each module.

The OUTSIDE Toolkit has the dual purpose of training teachers and educators to improve their skills (technical and transversal) applying the founding principles of the OUTSIDE methodology (environmental and outdoor education, open schooling, project-based learning and entrepreneurial education) with students aged 11-16-year-old and at the same time, it provides training material that will help the target group to develop skills in a field of strategic importance but also in future perspective. Skills such as creativity, working in a team, taking initiative, digital skills, mobilizing others and resources and vision will be at the core of the Toolkit.

So...how to make the most of this Toolkit? Here you find some tips:

- the 8 modules can be approached both as single learning experiences or considered as a whole educational package following the OUTSIDE path (from module 1 to module 8);
- the Toolkit is a living, open and adaptable resource. The educational community can contrivibute to it by using its tools, adapting them to the specific needs and then reshare it!

- all the resources available in this Toolkit (OERs. external resources, etc.) are also made available on the OUTSIDE Resource Centre. This online tool also contains the authentic material created by the project partners during the experimentation of the OUTSIDE methodology, as well as material (policy papers, projects, best practices, research. studies. etc.) focused on education applied to innovation in environmental protection and sustainability through open schooling useful for teacher training. The platform will help students, teachers and local stakeholders become change agents in their local community through acquisition of innovative competencies linked to creativity, sustainability and green entrepreneurship.
- this Toolkit should be used as an integrated tool with the OUTSIDE Resource Center. The platform is not on an interactive version of this Toolkit, it is a learning hub where teachers, learners the educational community and the local stakeholders interested in innovating the school systems can meet.

The OUTSIDE Toolkit is available in English, Italian, Croatian, Dutch and Lithuanian.

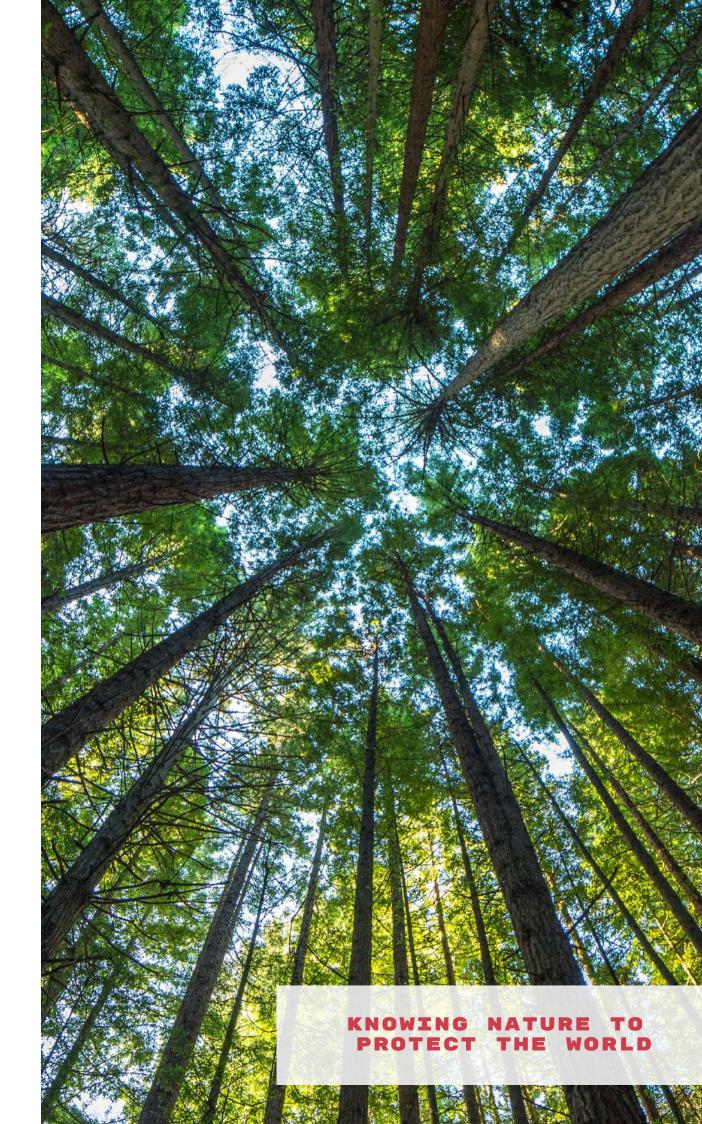
We invite you to download and adapt it and its resources to your own context.

Register to the platform and discover more!

OUTSIDE TOOLKIT VIDEO TUTORIAL

The video tutorial will take you through the Resource Center explaining not only what you can find inside but also how to contribute to the further development of the Toolkit.





INTRODUCTION

The importance of nature protection has become a priority in 21st century education. What we want to protect we need to know well so that our protection can be effective. What is ecology? How to explore nature? How to become a better teacher and researcher thanks to knowing Nature? What can we learn from the Nature? What is biomimicry? How can every teacher support students in the research process?

This first Module aims at helping teachers and educators become aware of nature protection.

LEARNING OBJECTIVES

- To describe ecology as an environmental science.
- To implement elements of ecology in teaching.
- To explain the theory of the research process.
- To apply research process in teaching process.
- To arrange research assignments for teaching.
- To define biomimicry and identify its value in education.
- To understand the importance of studying nature for the progress of mankind.
- To analyze examples of good practice of including environmental content in the teaching process.

LEARNING OUTCOMES

- Teachers will be able to explain ecology as environmental science and implement its elements in teaching.
- Teachers will be able to use stages of the research in their lessons.
- Teachers will get to know biomimicry as the new scientific discipline.



Teachers will get to know examples of best practices and be able to create similar lessons.



Teachers will be encouraged to exchange their ideas with other educators (forums, social media) and use interactive tools (games, quizzes, etc.).

TRAINING SESSIONS

This module consists of 4 mutually independent sessions. The users can choose only one, several or all of them according to their needs.

- Session 1: Nature as a part of the environment: theoretical introduction in the ecology
- Session 2: Nature as a Researcher: theoretical introduction in the research process
- Session 3: Nature as an Innovator: biomimicry
- Session 4: Nature as a Teacher: examples of best practices
- VIDEO LESSON MODULE 1



SESSION 1 NATURE AS A PART OF THE ENVIRONMENT: THEORETICALINTRODUCTION TO ECOLOGY







THEORETICAL INTRODUCTION TO ECOLOGY

Definition game: each participant or group of participants is given one term (card) to define as if they were writing a definition for an encyclopedia. They should state the higher gender term given and its distinctive features. Participants do not know what terms other groups have. Participants read their definitions, and then the ppt shows the actual definitions of those terms. Participants will, without criticism, comment on the degree of accuracy in defining given terms through the conversation

WHAT IS ECOLOGY?

When people mention ecology, they often think exclusively of environmental protection or waste management, but ecology is not only that.

Ecology (eco- + -logy) is a science that studies the relationships between organisms and the relationships between organisms and their environment. Ecology as a whole has a distinctly interdisciplinary character, as it studies the relationships of plants and animals to very diverse factors of living and non-living environments.

These are climatic factors, edaphic factors or soil factors, influences of flora and fauna, and in recent geological times are increasingly expressed and very diverse indirect and direct human influences, the so-called. Anthropogenic factors. It follows that ecology is closely related to other, primarily natural sciences, such as climatology, pedology, geology and others.

From the above, we can conclude that ecology is closely related to both environmental protection and waste management. Still, it also explores much more deeply into the relationship between living and non-living nature.



<u>Ecology-Definition-Examples-Explanation</u> (Video)

After watching the video, participants can solve the quiz:





One of the essential elements of preserving ecological balance is the preservation of biological diversity. Biodiversity means the number, diversity and variability of living organisms; it shows the number of species as a whole, in a particular area, ecological system, or habitat. Communities, biocenosis with more species are more stable, more resistant to external disturbances, and recover faster after environmental disasters (according to biological diversity).



What is Biodiversity? (Video)

After watching the video, participants can solve the quiz:



Human ecology deals with the study of the relationship between man and his environment. In recent times, it is developing rapidly because man, as the leading polluter of nature, technological development and demographic expansion has dramatically increased its impact on the environment, which is so altered it harms his health and threatens his survival. The world's population is growing much faster than food production. Natural resources are being consumed irrationally. The biosphere is increasingly polluted by waste, and the amount of arable land is declining. That is why today, a reasonable part of humanity pays excellent attention to the protection and improvement of its environment and biosphere.

DEBRIEFING

To wrap up the session, the trainer will facilitate a debriefing moment where participants are encouraged to express their questions, doubts, ideas and feelings toward environmental protection, ecology, waste management.

Participants can express their views on the possibilities of sensitizing students to these topics in different subjects.



SESSION 2 NATURE AS A RESEARCHER: INTRODUCTION TO THE RESEARCH PROCESS



INTRODUCTION

Small talk about the cite by Richard Bach:

"Don't believe what your eyes are telling you. All they show is limitation. Look with your understanding. Find out what you already know and you will see the way to fly."

RESEARCH IN THEORY AND TEACHING

Science is a set of already verified and stored knowledge (fact and generalization). It is also a way of thinking and looking at reality. Science is also a logical, systematic, objective method of collecting, classifying, defining, measuring, describing, generalizing, explaining, and evaluating experiential facts (Wikipedia).

Scientific research is a process of acquiring knowledge that requires practice, active work. It is an intellectual craft that must constantly evolve through creative and critical thinking and constant confrontation with reality. Research takes place on the borders of ignorance and progresses by questioning everything. Asking questions, i.e. curiosity, is probably the most important part of scientific creativity. It leads to questioning "if... then" (what it would be if it were) and then further to observation or experimentation.

Research is, therefore, a process of critical and creative thinking motivated by curiosity whose product is verified and therefore applicable knowledge. The selection of excellence in scientific research is done by the scientists themselves.

In order to engage in research, one must possess certain skills and characteristics: curiosity, creativity, self-awareness, communicativeness, systematicity, perseverance, the ability to predict based on known facts, the ability to respect other people's opinions, responsibility...

No matter what area the research relates to, it always takes place through six basic stages.

Basic stages of research:

- 1. Problem selection
- 2. Project development
- 3. Data collection (conducting research)
- 4. Data processing
- 5. Drawing conclusions (and preparing reports)
- 6. Application in practice





When designing and conducting research, it is important to pay attention to the following:

- The problem should be posed clearly and unambiguously, which enables scientifically based acceptance or rejection of the set hypotheses (too broad a problem is very difficult to investigate thoroughly).
- The project is the basic document of any research (Mužić, 1999). It contains a scientific problem assumptions (hypotheses), explanation of contributions (improvement of scientific knowledge or practice), general methodological approach to research, detailed planned activities (the course of research), necessary materials, methods of analysis of collected data, costs, deadlines.
- During the course of the research, it is important to consistently and accurately monitor and record all the data obtained.
- The collected data should be clearly presented and then processed. It is important to know how to use tables and graphs, as well as the basics of statistics, regardless of the field of activity of scientists.
- Based on the collected data, conclusions are made, either independently or through discussion with associates.
- It is important to know what is important in everyday life new knowledge - to know where and how it can be applied, and to try it in practice.

In order to introduce students to the world of science and research, we need to introduce them to scientific articles with the results of some real research. We can do this either in science classes or in a mother or foreign language classes.



<u>How to use scientific articles in class</u> (Video)

After watching the video, a conversation will follow.

HOMEWORK

In the classroom, teachers will process a child-friendly scientific article or conduct a miniresearch/experiment with students according to the suggestions above.

Write and send student comments and your comments to the class held if it is possible.

Suggestions:

- Case Study on Invasive Species for 5-9th Grade Students (in English and French)
- Endangered Rhinos Conservation Data Graphing Activity for 5th-9th graders
- How do dams affect fish populations
- Glossary of Common Scientific Terms.

DEBRIEFING

To wrap up the session, the trainer will facilitate a debriefing moment where participants are encouraged to express their questions, doubts, ideas and feelings toward using research in the teaching process.



SESSION 3

NATURE AS AN INNOVATOR: BIOMIMICRY



INTRODUCTION

Participants will watch the video: What is biomimicry?

After watching the video, participants will talk about what they already know about biomimicry and what they want to learn.
Participants can solve the quiz:



BIOMIMICRY

Participants will be introduced to the beginnings of biomimicry with the help of another video: <u>Biomimicry: when technology is inspired by nature</u>.

After watching the video, participants should talk about what has been shown and talk about where they all notice taking solutions from nature in everyday life.

Biomimicry is an approach to innovation that seeks sustainable solutions to human challenges by emulating nature's time-tested patterns and strategies. Biomimicry is revolutionizing education—offering teachers a way to inspire students of all ages by blending biology, STEM, creative problem solving, design, and systems thinking.

HOMEWORK

Participants can study the tools for educators developed by Biomimicry Institute.

Participants can also perform the following task: think about the solutions you see in nature around you.

Do you have any idea how any of them could be used to solve a problem or challenge in our environment? Make simple prototypes or other visualizations (drawings, storyboards, etc.) for your idea. It helps you to recognize problems or opportunities you might have missed and makes it easier to share your ideas with others for feedback. Even low-resolution, non-functional prototypes can be very useful when first testing out concepts.

DEBRIEFING

To wrap up the session, the trainer will facilitate a debriefing moment where participants are encouraged to express their opinions and feelings towards using solutions from nature to find optimal solutions to problems and challenges in construction, traffic, everyday life.



SESSION

NATURE A TEACHER: EXAMPLES BEST PRACTICES







INTRODUCTION

The trainer will start the session by discussing the involvement of environmental topics in regular classes and the frequency of implementing complex environmental projects in the schools from which the participants come.

EXAMPLE OF GOOD PRACTICES

In previous sessions, various examples of implementing ecology in the teaching of individual subjects have been presented.

Here are a few more examples:



The Silent Forest was the first EAZA conservation campaign focused primarily on birds. particularly songbirds of Southeast Asia.

Songbirds have become the subject of an excessive and strong culturally rooted consumption for trade, singing competitions, pet trade, export traditional medicine and food. The Campaign ran from 2017-2019. Video presentation of the project Hallway of silence under the motto "I naš glas za ptica spas - And our voice for bird salvation" was conducted by D. Cesarić Elementary School at the invitation of the Zagreb Zoo and the

EAZA (European Association of Zoos and Aguaria). Video presentation of the project Hallway of silence under the motto "I naš glas za ptica spas - And our voice for bird salvation" was conducted by D. Cesarić Elementary School at the invitation of the Zagreb Zoo and the EAZA (European Association of Zoos and Aquaria).



Oasis for kids: a project urban gardening developed by association O.A.ZA.



The birds, and the children. and the squirrel - they can live together: review of a project implemented over a period of 3 years

at the Dobriša Cesarić Elementary School, Zagreb. The project aimed to preserve and increase biodiversity in the schoolyard. It was implemented by students members of the eco group, and the beneficiaries were all students and school staff and fellow citizens in the local community. As a final result of the project, a picture book was made of children and birds and squirrels (they can do it together) in Croatian and English.





- Case Study on Invasive Species for 5-9th Grade Students
- Endangered Rhinos Conservation Data Graphing Activity for 5th-9th graders
- How do dams affect fish populations?
- Glossary of Common Scientific Terms
- 5 biology experiments you can do at home
- Science activities for Kids
- Convention on biological diversity
- <u>Understanding biomimicry</u>
- Biomimicry Toolbox
- Life lessons: bringing biodiversity into the classroom
- Sharing Biomimicry with young people (for educators)
- Ask Nature
- Hallway of silence
- European association of ZOOs and aquaria
- Good practice examples in Croatian schools: Upcycling, Urban Gardening
- BIOM
- Osnovna škola Mikleuš
- Biološka raznolikost. Croatian encyclopedia, online edition
- <u>Ekologija</u>. <u>Croatian encyclopedia</u>, <u>online edition</u>. <u>Lexicographic Institute Miroslav</u>
 Krleža,
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INTRODUCTION

The aim of this training module is to train teachers and other people working with teenagers to be able to support them being in interaction with society and life around them and to develop their understanding about how important it is that they can relate to a diversified environment.

In the first part of this module we will describe the needs of children for their development that have been identified by science and experience, and describe the way that the democratic open school l'Arbre des Possibles (Belgium) has been using this to support them. L'Arbre des Possibles will be used as a model of an open school.

The second part of the module focuses on the starting point: "How can a classical school bring students more outside?", and will show examples of activities that teachers can propose to their students to be more in contact with their environment and with people outside of the school.

LEARNING OBJECTIVES

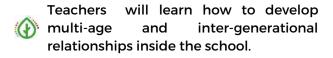
To understand that the diversity of experiences, inputs, relationships, environment, is an essential key for the learner's development.

To develop an attitude towards the learners that supports their curiosity, creativity, expression of their emotions and wishes, participation, cooperation, empathy, social skills, autonomous learning and thinking.

- To explore the relevance of connecting with nature.
- To discover how to implement outdoor activities for students.

LEARNING OUTCOMES

- Teachers will develop their attitude as described above.
- Teachers will learn how to organize forest days and forest days.



- Teachers will learn how to organize "Skills Markets".
- Teachers will find inspiration on how to open more their school to diverse actors and stakeholders.

TRAINING SESSIONS

This module consists of 2 mutually independent sessions. The users can choose only one, several or all of them according to their needs.

- Session 1: The importance of an open and diversified environment in the child's development
- Session 2: Learning outdoors in a traditional school
- VIDEO LESSON MODULE 2



SESSION 1

THE IMPORTANCE OF AN OPEN AND DIVERSIFIED ENVIRONMENT IN THE CHILD'S DEVELOPMENT





SOCIETAL AND THEORETICAL BACKGROUND

In the classical school system, the traditional way is to keep children inside the walls of the school most of the time, and inside the walls of the classroom. In a class group, made of children of their own age, they interact with one single adult or a few as daily teachers. This separation, though practical in organizational perspective (in line with the industrial mentality in Western society), is nowadays found very limiting for the development of children, by neuroscience, new pedagogy, and through the experience of alternative schools and associations around the world.

Our society today sees many aspects of its functioning being called into question, as they have shown their limits. Classical teaching has been criticized for a long time now. The need to change the education system, for the well-being of children and for quality learning, has led to more and more initiatives to create "alternative schools" and "outside schools". Inspired by great thinkers (Montessori, Rudolph Steiner, Daniel Greenberg, ...), this movement is spreading today and sows

around its models allowing to better support the development of children, and thus that of our society.

The school l'Arbre des Possibles follows the tracks of similar initiatives that came beforehand (La Ferme des Enfants and l'École Écolline in France, the Wolf schools, the Sudbury Valley school,...), drawing on famous theorists of pedagogy and cognitive science, as well as our own experiences with young people.

This school is unique, created progressively by the team, the children and the parents. It is grounded in its environment, based on the respect of the needs of each, and a horizontal relationship between adult and child where the child is the main actor of his learning process.

A MODEL OF DEMOCRATIC OPEN SCHOOL - L'ARBRE DES POSSIBLES (BELGIUM)

The school l'Arbre des Possibles ("The Tree of Possibilities") is a private alternative school located in Belgium, and was founded in September 2018.



It currently hosts 30 children from 3 to 18 years old. It is a so-called "giraffe democratic school". This means that decisions are taken under shared governance by the adults and children, and that all learn to use non-violent communication (hence the term "giraffe").

The educational project is based on the following principles: "Free to learn", connection with nature, multi-age and inter generational grouping, benevolent and secure environment, the richness of the social, material and natural environment (quality of the team, the accommodation, the governance and of the food and pharmacy).

Everyone is free to use their time as they wish and to follow whatever excites them. The student, immersed in a rich and diverse environment, will naturally develop what is necessary for him to evolve in the world in which he lives.

The school building is surrounded by a garden with a vegetable and herbs garden, a cabin for games, a sand playground, a small creek, paths to the woods, the fields and the village where the children live. The children dispose of a lot of space and material to explore their creativity, movement, studies, scientific experiments, observation of nature, the library, computers, wood work, handcrafts (basket weaving, leather etc.) and much more.

"Good relationships with oneself, the others and with nature": this is one of the basics of the Arbre's values. Outdoor learning plays an essential role in our school: there are two "forest days" a week. The students stay all day in the woods, close to a burning fire and sheltered if necessary, doing various activities.

"Education", "raising" young learners mean supporting them in their development and fulfillment. This task is too often insufficiently accomplished by traditional education with certification exams, stress, limitations on children's freedom, the excess number of students in classrooms, teacher exhaustion, lack of support for spontaneous curiosity, ... By child development, we refer not only to his learning (theoretical, practical, knowledge of the world, experiences), but also to his wellbeing, his psychological and social development.

It is through interaction that humans learn. Discovery. Experience. Going outside. Classical schooling is usually centered on theoretical and intellectual development, and mostly enclosed in the building of the school. It is crucial that today's schools recenter their objectives on the real skills needed by the children to live in our society. In a benevolent and diversified environment, with rich interactions possible, they acquire the skills they will need all their life.

THE RELATIONSHIP WITH OTHERS AND WITH NATURE

The interaction with the Other is a major foundation of human life. Whether it is in our relationship with man or with nature, it is through this link that our human nature can be fully embodied and flourished.

"The Nature Deficit Disorder has described by Canadian researchers who have thus underlined how the regular contact with Nature is an essential element for the construction of each child on the psychological and physical level. The general idea carried by the studies associated with the description of this syndrome is that nature is an essential component in everyone's balance. Its absence is a source of instability and disorder ensuring regular contact with nature is a vector of stability. The universe of life that we have built for ourselves has taken us away from this regular contact and has brought to light the negative effects of its deficiencies. Touching the bark, digging the earth, caressing the moss, sinking in the mud, rolling in the grass are positive experiences in the construction of the child, of which he is deprived (...). Restoring this contact with nature is simply a return to normal" (Richard Louv, Last Child in the Woods).

"For children to understand the world and develop their intelligence, have them climb trees and run in the woods" (Louis Espinassou, Let them climb trees).



Implementing forest school days, means that whatever the weather, children explore, two days a week, the deep connection to nature, to others and to themselves. Nature, including fauna, flora, rocks, star is an inexhaustible source of learning, as is simple life together outdoors. Nature is in perpetual motion, rich and diverse. It offers the child the possibility of constantly adapting, and allows him to be in connection with it with his whole being (sensory, emotional, cognitive, bodily and spiritual).

"Now the world can be discovered through the internet, and children are fascinated by electronic games. Most no longer play outside. We are beginning to measure the ravages of this societal trend: the empirical perception of the environment is fading, fantasies and fears with regard to the Other take precedence over knowledge, more and more children are overweight and have difficulty coordinating their movements, etc. However, coming into contact with nature, the city, and their inhabitants in tangible reality, is vital for the development of the child. (...) Knowing through concrete experience, refining one's perceptions, cultivating one's curiosity, developing one's sensitivity and attachment to one's living environment, evaluating the quality of the environment and contributing to its improvement, children learn better in the field than on an interactive board" (Christine Partoune, 2019).

We promote showing students knowledge and respect for biodiversity, and develop responsible awareness of the environment. Children who spend time with nature build a relationship with living things around them. Every day we hear children talking about an animal they saw and we notice them loving trees. They learn much spontaneously through observation and sharing. Most of the children already know how to behave in nature (waste management, observe without damaging) and affirm wanting to protect it from pollution and destruction.

ADVENTURE

Nature also offers the experience of adventure for all; it leads to surpassing oneself and exploring. This is especially crucial for teenagers. Through experience and confidence, everyone will step by step exceed their own limits. In that time of their life, teenagers tend to expand towards the outside, search for meaning and their place in the world (especially in the current ecological, financial and political context), develop autonomous thinking, need adventure and discovery, express their creativity and interact with a wider circle of people, etc.

Teenagers are very curious and open towards the outside. In this time of their growth, they look for widening their circle of relationships. It is important for them to have a group of friends, and to meet new potential friends, and different kind of people. Their curiosity is directed towards a wider range of possible activities, information, places, etc. It is essential to support that spontaneous research.

It is also the time that they build their identity, find out what are their specific desires and talents. The classical school that forces teenagers to sit and do nearly the same activities each day, produces young adults who didn't get to explore, don't know what they want to do, and yet are expected to know which studies, which job they choose.

Outdoor activities also are necessary at that age for physical well-being. Young people who do sport, walking or other physical activities are less tempted by spending too much time on screens, eating junk food, obesity, trying drugs. In classical schools, youth's strength and enthusiasm is tamed by the obligations of school schedules and social pressure, producing the "bored teenagers" that we all know (or have been).

Group activities, often involving teenagers from other schools, are very beneficial to them. In Belgium, associations such as D'une Cîme à l'Autre ("From one Tree-top to the Other") organizes camps and activities such as canoeing, hiking, climbing. At the school The Tree of Possibilities, we organize this type of activities at least once a month.

Group activities of course develop communication skills, self-confidence, bonding with friends, and respond to the need of adventure and discovery.



PARTICIPATION AND DIVERSITY OF INTERACTIONS

- Richness of the environment (explained before in session about the democratic open school model).
- Diversity of people to interact with: multiage grouping, inter-generational activities, involvement of various people including parents.
- · Diversity of skills available for learning.
- Diversity of places explored (forest days, adventure days, etc.).

It is crucial to make available to the children a great diversity of opportunities to interact and to learn. Beside what they will learn, participation, cooperation, and healthy communication are essential skills to acquire. that are only acquired through interactions. They are an essential part of life for adults as well as children. The mix of children of different ages and the intergenerational dimension are essential for learning and social development.

Fostering a diversity of children's ages and skill levels that promote learning opportunities. "It has been shown that children of different ages naturally adopt this natural pedagogical posture among themselves: they guide each other in their exploration of the world by pointing out the important elements to take into account; they exchange their experiences and their knowledge, in a natural, progressive and adapted way" (Céline Alvarez, The Natural Laws of the Child, p.85).

This diversity of ages is also beneficial for social learning. Thus: "This mixture of ages and this horizontality also allow all children to face a greater variety of social behaviors. They can thus naturally encode and understand the workings of social relations in a much richer way than by being only confronted with peers of the same age" (Céline Alvarez, p.89).

There is also a great diversity in the adults participating in the school. Meeting all these different adults, children learn new skills and have the opportunity to develop their social skills as well. At least two of the four educators are present every day, being the referent people for the children. They are very well formed into pedagogy, non-violent communication, emotional awareness, etc.

All parents are giving some voluntary working time to the school. This time is given as a non-financial retribution. but more importantly it makes it a real community work to raise the children. Examples: Some parents come to build a new cabin for the children to play in. Some children are happy to help build it and thus discover new skills. Some parents give workshops, some work in the administration or in the organization of events etc. The regular or occasional workers of the Tree are of all ages, including retirees. There is a great diversity of workshops organized by different people (from art crafts to music and mathematics). We have since the beginning implemented a Skill Market. This can be done as well in a classical school. We welcome various kinds of other visitors as well. Students, teachers, or people wanting to create an alternative school come to share their skills and knowledge. Children too organize their own workshops and events.

Being well-grounded in its region (the school is close to the village where 1/3 of the children live, and it involves many people in the area), the school has become a real space of inter generational transmission.

Every day the students are in contact with not only their educators, but several other adults bringing some help to the school, giving workshops etc. They meet new adults all the time and have the opportunity to follow the workshops of their choice. This model of democratic and open school actually tends to go back to the community or tribe model of raising children.

"To raise a child you need the whole village" African proverb.



THE ATTITUDE OF THE ADULT

The adult who accompanies the child is a researcher, observer, facilitator in a reciprocal sharing of learning. He has an Unconditional Caring Attitude, in order to evolve in the respect and the recognition of each one in all the states that life can make him go through. Benevolence is that precious, non-judgmental attention to yourself, to others and to our environment. It not only allows us to flourish on a daily basis while feeling safe, but also to welcome our mistakes as so many opportunities to move forward.

Non-Violent Communication: this tool (from Marshall Rosenberg) facilitates conflict resolution and allows an exchange where the emotions and needs of each are welcomed, recognized and respected. It makes it possible to find concrete solutions by bringing clarity to needs and requests. The children have the opportunity to develop their communication skills. respect for others. empathy, cooperation, etc.

LEARNING OUTSIDE... THE BOX

The child, bathed in a rich and diverse environment, will naturally develop what is necessary for him/her to evolve in the world in which he lives. At l'Arbre des Possibles, children can: play freely, alone or with others; be accompanied by the person of their choice in an activity they initiate; follow a workshop given by a "host". The child is at the heart of this system. He is at the heart of his learning and is its "master". They also learn to take responsibility for their choices, their learning and the certification and their knowledge of compulsory subjects. When children play freely, they respond to their natural surge of curiosity, enthusiasm and sociability. "... We believed that play was a secondary activity, we devalued it as a hobby, confined to moments of leisure - opposed to learning on the scale of constitutive values. We now know that, of course, it is no accident that nature has equipped us with the ability to play: it is the most surprising, the most efficient, the most suitable and the happiest of development devices.

What does the child do when left alone? He plays. And if we never interrupted him, he would always play. Why has no one wondered what would happen to a child who was allowed to play all his life?".

"...Shelled from now on by scientists, the process is as simple as it is crystal clear: enthusiasm acts like a fertilizer. Where we get excited, our brains develop rapidly and spontaneously. Neurobiology proves what we all know from experience: Enthusiasm is the key. He gives us wings, frees us from obstacles. In a state of enthusiasm, nothing is inaccessible any more, and learning is "done by itself". Watching small children shows that they experience a surge of enthusiasm every three minutes. In adults, such an outbreak is only experienced on average two to three times a year ... Why has no one wondered what would happen to a child who was left in his or her life native state of enthusiasm?". (André Stern. 2014).

To renew itself, the school system needs indeed a great deal of Openness, Community, Sustainability. Good guidance for this evolution can be found in the desires and free-thinking of our young ones. And they need all their relations around them to support.

In the next session we will be presenting some ways and reflecting together on how to implement specific outdoor activities in classical schools, such as forest days, adventure days, Skill Markets, etc. We will also be addressing issues of possible obstacles facing schools wanting to implement outdoor activities.

QUESTIONS TO THINK ABOUT

- How open is your school at the moment
- How flexible to change is it? Which new activities bringing students outdoor can you think of?
- How would they be welcomed by the administration of your school?
- What do you think your students would like to do?
- What could you do to increase the dialog about it in your school?



SESSION 2

LEARNING OUTDOORS IN A TRADITIONAL SCHOOL







WHAT IS A TRADITIONAL SCHOOL?

The model of the traditional school focuses on the formation of a child's intellect, his/her ability to solve problems, capacities for attention and effort, as the best way to prepare him/her for life.

Its main theorists have argued that teaching is a clear and perfect choice of models which are offered to students. For this reason, the teacher is considered as a guide and mediator between the models and the child, who needs to emulate and adapt to these guidelines.

Traditional school is a fairly rigorous, not very dynamic system that alienates teachers from their students.

The traditional school focuses on teaching the student according to the teacher's wishes. The desired result is that the student repeats the knowledge provided.

It is considered a transfer pedagogy when it is entirely up to the teacher who conveys knowledge and teaches the student. Classes are usually explanatory, verbal, and convey a large amount of information.

There is also a need for content selection, standardization and organization. Traditional learning lies in a teacher's ability to teach.

The only tool for assessing learning is the exam, which is summative. It is designed to check that the knowledge provided has been accumulated and memorized, which will depend on the student's ability to store information.

Although the traditional school is a pedagogical model that has received harsh criticism from other currents of thought, it remains one of the most prevalent in educational institutions.

In addition, it must be acknowledged that it has some positive and valuable aspects of education. Among the advantages of this pedagogical model are:

- contributes to the development of personal effort, will and self-discipline among students;
- it is most efficient to transfer pure data such as historical dates or the laws of physics, mathematics or chemistry;
- it requires a high level of academic preparation and mastery of the teacher, thus encouraging the teacher's creativity and dynamism in involving students in the educational process.



The traditional school is changing little by little. It seeks to look ahead with a view to the future, from a traditional, knowledge-based school to a constantly learning, creating, changing school that responds to the needs of students and society.

Such a school is no longer limited to a resultoriented process but works in a complex way, focusing on an overarching process that meets the individual needs of students and society, seeks to ensure the individual progress and achievement of each community member, and the whole organization is encouraged to improve.

However, there are not always enough opportunities to allocate resources and try out innovative teaching methods. Although in many European countries the role of the school head, his/her initiative and professionalism are emphasized as important factors in increasing the efficiency of schools, this is not enough, a change in the role of the teacher is also needed.

Teachers' motivation, knowledge and skills, and the expression of school leadership are key factors in ensuring better learning outcomes.

The aim is to adapt the educational model to the essential needs of a growing child, to combine teaching/learning and selfexpression, the knowledge of subjects and practical activities, to help reveal the uniqueness, creativity and talents of everyone.

LEARNING OUTDOOR

Field pedagogy includes teaching according to a general education program outside the school building. It is not just a game on the field. It is a careful, well-thought-out lesson activity, usually based on exploration, setting out learning outcomes in the field (MacQuarrie, 2018).

Each school should have an 'outdoor classroom' that can be used for education. Outdoor classes can come in a variety of sizes and shapes, and there are many tools available to students and can be used by teachers for a variety of purposes.

Field learning can take place anywhere for learning outside the school building. Creative teachers can greatly improve students' learning - both process skills as well as content concepts (Spray et al., 2015; Tranter & Malone 2004; van DijkWesselius et al., 2020).

IMPLEMENTING OUTDOOR AND OPEN ACTIVITIES IN A TRADITIONAL SCHOOL

Outdoor activities, outdoor games develop free and unfettered creativity, imagination, activeness, especially environmental cognition, which has a positive effect on the nervous system.

Performing tasks outdoors is convenient because all the tools can be found right here: pebbles, pine cones, chestnuts, sand and other natural materials.

Cognitive competence is developed (critical thinking. information gathering. measurement, grouping, calculation, comparison through observation, testing, etc.), others competencies are also developed: social (communication and cooperation, teamwork). communication (ability understand others. express oneself. enrichment of vocabulary), health care (physical activity, ability to concentrate, friendly relationship with others, emotional well-being), artistic (creative ideas), initiative, digital literacy.

Students of different ages, abilities, experiences get to know each other, make friends, which contributes to a more favourable school microclimate.

As it is necessary to create a product, students see very clearly how they are able to apply their theoretical knowledge in practice. Students link different subjects and learn from each other.

ASK THE STUDENT!

This can be implemented in a classical school in order to gradually develop greater openness to the environment.



Ask the students where they want to go, what they are interested in, which project they would like to create, which adventure they dream of, what they want to know and experience. This can be done simply by organizing a meeting about it. The person leading the conversation should write down the wishes of the children, and talk about the ways to make their ideas feasible.

Students' survey. At the beginning of the semester, the subject teacher presents a curriculum and, together with the students, begins to plan integrated activities related to outdoor learning.

Students offer educational environments, the teacher selects topics according to the general curricula and teaching methods paying attention to the wishes of students.

IMPLEMENTING FOREST DAYS

Forest Day is a day of non-traditional education, during which students of all ages go to the forest.

For example, a traditional school organizes a forest day. During it, students go to the forest with their teachers, study the forest vegetation, register, describe, count and measure it.

All subjects are integrated, so each task is specific, meeting the needs, desires and personal skills of the students.

Interested in implementing a forest day? Start with the following tips:

- find an interesting place in the area where it is allowed to organize.
- create an accompanying team with at least one person who knows the area and can introduce it to students.
- give students plenty of free time to play and choose their activities.
- fire is the main point to gather.
- offer students outdoor activities: team games, tree climbing, find a personal place to be alone.
- listen to the sounds of nature, the identification and tracking of plants and animals, art craft from natural materials,

cooking on fire, wood carving, etc. Just let them discover and play.

- Forest Day activities
- Specify parts
- Find the hidden word
- Assignments in language lessons
- Assignments in math lessons
- Assignments in art lessons
- Talking to a tree forest bathing

ADVENTURE DAYS WITH TEENAGERS

Adventure days for young people - days of non-traditional education.

Camping in nature, learning to light a fire, kayaking, hiking. Sports competitions for children of all ages walking in silence to hear each other, nature and themselves; treasure hunt with maps, orienteering competition.

For example, a school organizes an Adventure day. During it, all the students, teachers and all the members of the school community sometimes go on a hike to the chosen place, which is usually near the water (lake, pund or river).

Sometimes they walk a few miles in silence to reflect, listen, hear themselves and the world around them. They travel by capturing and photographing visible objects. This experience is then summarized and reflected.

Upon arrival, the students set up a camp, light a campfire, and prepare a common lunch. Sports, orienteering competitions, treasure hunts are organised. All the activities which students want. The day ends with reflection.

<u>"Adventure Day": active outdoor activities</u> for students



FACILITATING STUDENTS' ACCESS TO NATURE

There may be barriers to outdoor activities in a classical school. Notable barriers include:

- Fear, health and safety concerns;
- teachers' distrust of teaching in the field;
- School Rules:

curriculum.

- school curriculum requirements;
- lack of time, resources and support.

The traditional school still focuses on student achievement (exams, tests, quests, semesters). It is very important that the training programs are implemented. Sometimes such days can only be organized once or twice a year. Non-traditional days must be planned in advance so that they can be included in the

Teachers and educators are responsible for the safety and health of students because certain activities are risky. Safety instructions are written for each event or activity provided to children, and each student must be registered.

In order to facilitate students' access to nature:

- collaborate with social partners (park staff, farmers, landscape specialists, etc.).
- organize activities in the school yard, outdoors (games, activities).





- Freedom to Learn: the roles of play and curiosity as foundations for learning
- Sudbury Schools worldwide Student Voices
- Thriving Roots Wilderness School
- Institute for Natural learning
- Nature and well-being in outdoor learning: authenticity or performativity
- The Adventures



6

INTRODUCTION

This module is built to help teachers and school staff to turn their school into an "Open schooling system". By using this module, practitioners will learn how to create cooperation among schools and the local community, to interact and attract local stakeholders.

In particular, this module will explain how to encourage families to become real partners in school life and activities and how to involve professionals from enterprise, civil and wider society in bringing real-life projects into the classroom, as well as on how to bring students to discover the outside world, and connect with local communities.

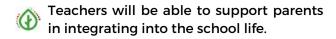
The overall goal is to be able to build local communities where students, teachers, education policy makers, parents, and other interested members of society are included in order to expand the learning environment beyond the school walls and expand opportunities for students learning.

LEARNING OBJECTIVES

- To explain what open schooling is.
- To give a theoretical basis of the open school pedagogy.
- To explore the relevance of connecting with nature.
- To explain how to support students interests outside the school.
- To discover how to involve parents and stakeholders into school life.

LEARNING OUTCOMES

- Teachers will be able to comprehend what open schooling is about.
- Teachers will be able to connect open schooling approach with main pedagogical theories.
- Teachers will be able to analyze the local community around the school to determine possible cooperation.



Teachers will be able to involve the local community and get them involved in school life.

TRAINING SESSIONS

This module consists of 2 mutually independent sessions. The users can choose only one, several or all of them according to their needs.

- Session 1: What is open schooling: theory and pedagogical approaches
- Session 2: Mapping and connecting with local community
- VIDEO LESSON MODULE 3



SESSION 1 OPEN SCHOOLING: THEORY AND PEDAGOGICAL APPROACHES







ICE BREAKER: "WHEN I Say School"

Participants are invited to answer to this question: When I say school, what is the first image you have in mind?

In our mind, indeed, school is connected as a closed space, with no link with the external environment. We imagine classess as desks where students are in phisical distance and "opposition" to the teacher. If we google "school" and "class", in the 5 most spoken languages in Europe, we obtain always the same stereotypical images, as the ones here below:



The objective of this session is to dismantle this image and re-imagining school as a different systems: as an open space, connected to the local community around and to real-life contexts.

ABOUT OPEN SCHOOLING



What is Open Schooling? (Video)

Starting from the awareness that the current educational methods, and the traditional school model does not meet the needs of a fast-changing world, nor bring the skills needed to face the 21st century challenges, the Open School concept tries to envisage the school as an open space, connected to the local community around and to real-life contexts.

Following this understanding, an Open School is defined as an "open, curious, welcoming, democratic environment which supports the development of innovative and creative projects and educational activities".

"It is an environment which will facilitate the process for envisioning, managing and monitoring change in school settings by providing a simple and flexible structure to follow, so school leaders and teachers can innovate in a way that's appropriate for school local needs. It will provide innovative ways to explore the world: not simply to automate processes but to inspire, to engage, and to connect" (Sotiriou & Cherouvis, 2020).



Open Schooling means therefore "transforming the school from a closed environment, to an innovative ecosystem interlinked with the development of the community around the school and the territorial actors. Concretely, schools, in cooperation with other stakeholders, are encouraged to become agents of community well-being.

Families are encouraged to become real partners in school life and activities. Professionals from enterprise, civil and wider society are actively involved in bringing real-life projects into the classroom" (EU Commission, 2015).

Moreover, as a major infrastructure and integral part of the community fabric, schools can have a profound impact on the social, economic, and physical character of a neighborhood.

THE PEDAGOGICAL FRAMEWORK: THE ECOLOGICAL SYSTEMS THEORY

The Open Schooling idea is undoubtedly in debt with Bronfenbrenner's **Ecological** Systems Theory, which conceptualizes the child/learner within a system of concentric and permeable environments (Bronfenbrenner, 1992). Bronfenbrenner deducted that all the five different levels of the environment should collaborate in the development of the child. Therefore, as Open Schooling explains, school should never been separated from the family and the rest of the society.



Bronfenbrenner's Ecological Systems:

5 Forces Impacting Our Lives (Video)

DEMOCRATIC EDUCATION

There is much similarity between the Open School idea and the philosophy of democratic education, that is anchored on self-directed discovery, where learning can happen inside or outside of the classroom, but most often real-life experiences are encouraged following students' intrinsic motivation and pursuing their interests.

This "most appropriately meets the needs of the learner, the community and society. It does this through developing reflective individuals who are collaborative problemsolvers and creative flexible thinkers" (EUDEC, 2020).

Below down you can find some videos that explains what Democratic Education is, and its relationship with the external and local world.

- Democratizing Education (Video)
- Democratic Schools (Video)
- <u>What is a democratic school?</u> (Video)
- Make Your Voice Heard: Discover Democratic Education (Video)

THE EDUCATIONAL POLICY FRAMEWORK

Open schooling comes from a bottom-up interest from single schools and educational centers interested in pedagogical innovation, but is also slowly supported by top-down institutional recommendations and documents. International and European organizations have indeed showed in the last 10 years, the importance for a school reforms that goes in the direction of open schooling.

Already in 2004 the <u>OECD's "Re-Schooling" scenario – horizon 2020</u>- was envisaging schools as:

"Core Social Centres": recognition of school's as having a collective and community tasks. Increasing the socialisation goals and schools in communities, for improving the shared responsibilities between schools and other community bodies, sources of expertise, and institutions of further and continuing education, shaping not conflicting with high teacher professionalism".

The European Commission 2015, Science education for responsible citizenship: report to the European Commission of the expert group on science education has a strong emphasis on Open Schooling.



The report indeed encourages: "collaboration between formal, non-formal and informal educational providers, enterprise and civil society should be enhanced

to ensure relevant and meaningful engagement of all societal actors with science and increase uptake of science studies and science-based careers to improve employability and competitiveness".

Moreover, the document encourages "open schooling" where:

- Schools, in cooperation with other stakeholders, become an agent of community well-being;
- Families are encouraged to become real partners in school life and activities;
- Professionals from enterprise, civil and wider society are actively involved in bringing real-life projects into the classroom.

Finally, the UNESCO Rethinking education: towards a global common good (2015) also looks at the importance of creating "networks of learning spaces", in the consideration that "what we need is a more fluid approach to learning as a continuum, in which schooling and formal education institutions interact more closely with other less formalized educational experiences from early childhood throughout life".

+

Rethinking Education: Towards a global common good? (Video)

A CHANGE OF TEACHING PARADIGM

When using Open Schooling, the education gets connected with real life. It is not an abstract subject, but it is always associated with hands-on experiences, practical examples, and learning by doing. This means, that by using Open Schooling, teachers undertakes a change in the teaching paradigm.

Teachers approaching Open schooling will indeed engage with active teaching, encouraging intrinsic motivation of the students and their passions, as all the cuttingedge researches on educations suggests to do.

Here, you can find a series of teaching techniques that are enhanced when teachers uses Open Schooling:

Project-Based Learning/ Problem-Based Learning/Experiential learning

Whilst teachers will draw distinctions between project, inquiry, and problem based learning, in reality the differences are minor, particularly in comparison transmissive, lecture or worksheet-based forms of learning. Learning begins with a problem to be solved, and the problem is posed in such a way that children need to gain new knowledge before they can solve the problem. Great projects and interests grow from inquiries. In open schooling, students are engaged because they are conducting work that is meaningful to them and their families or communities.

Rather than seeking a single correct answer, students interpret the problem, gather needed information, identify possible solutions, evaluate options and present conclusions.

This approach relish the opportunity to make adult-world connections, work across disciplines, and in extended blocks of time.



<u>Project-Based Learning: How It Works</u> <u>and Why It's So Effective</u> (Video)



Project-Based Learning (Video)

Multidisciplinarity/Interdisciplinary approach

Multidisciplinary learning means integrating education into a comprehensive unit rather than dividing into seemingly unrelated parts. It empowers to see tangible correlations across subject matters rather than view each in a silo.



<u>Integrated Multidisciplinary Approach</u> (Video)

Student-centered learning

It puts students' interests first, acknowledging student voice as central to the learning experience.

In a student-centered learning space, students choose what they will learn, how they will pace their learning, and how they will assess their own learning.



This is in contrast to traditional education, also dubbed "teacher-centered learning", which situates the teacher as the primarily "active" role while students take a more "passive", receptive role.

EXAMPLES OF OPEN SCHOOLING PROJECTS

Below you can find some inspiring examples of Open Schooling projects performed in the project "Open Schools for Open Societies".

I. Multidisciplinarity

- An open mathematics lesson where students with their teachers make a journey in time and space looking for the geometry shapes and body forms in Nature, in churches, museums, ancient homes, exploring the relations between mathematics, natural sciences, history and society.
- Fractional music: exploring the interrelation between mathematics and music, with the math teacher and in collaboration with an external music school.

II. Facing local needs

- An Italian school analysed extra virgin olive oils' samples sold on the national territory to assess the quality.
- Portuguese students researched how bees were treated and what state the bee population was. Students performed a series of research activities (interviews, investigations, etc.) to discover how the people relate to bees and the level of awareness about their importance. Students also investigated what the people in their community were willing to change to protect the bees.

III. Inclusivity and responsibility

A school team needed to find technological solutions to people with disabilities. The team looked for relevant stakeholders in the community, students encountered people from the disabled institute, performed interviews with the people and began to work on the solutions to the problems they defined beforehand.

For more inspiring projects, click here.

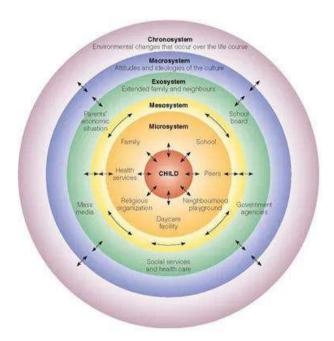
ACTIVITY NR.1

After having participate in the first session of this third module on Open Schooling, reflect on your own school and answer the following questions (you can work alone or in group with your colleagues):

- Why do you think that Open schooling would be relevant in your school?
- What would change if your school would open up to the local community?
- How do you think students could feel about that?
- Do you see any shortcoming in this system?

ACTIVITY NR.2

Reflecting on the Bronfenbrenner Social-Ecological Model of Development, try to place your school and your local community in this system by using the following model as an example, and identify all the actors involved.



DEBRIEFING

To wrap up the session, the trainer will facilitate a debriefing moment where participants are encouraged to express their questions, doubts, ideas and feelings toward the topics discussed.



SESSION 2 MAPPING AND CONNECTING WITH LOCAL COMMUNITY







ICE BREAKER

Ice breaker: Teachers can share one experience of collaboration of their school with the local community

WHY BECOMING AN OPEN SCHOOL?

Why should a school become "open"?

Open Schooling can provide the participating schools with numerous opportunities to engage in local, national and international activities with lasting benefits for the school heads, the students, the teachers, the school and the local community.

Here are the main ways in which the school could benefit:

FOR STUDENTS:

- Knowledge of the society and its challenges
- Enabling students to act in front of societal challenges
- Enriching the diversity of learning experiences
- Interactions across generations, which enable exchange, coexistence, and comprehension
- Connecting learning with project-based and experiential based learning (active learning approaches)

 Develop new options for youths from different groups to interact, within or outside of the school

FOR TEACHERS AND SCHOOL MANAGERS:

- Helping teachers in creating a more engaging and interesting journey at school
- · bring together the school and the family
- broaden the cultural universe of youths and teacher.

FOR SCHOOLS:

- · increasing schools' visibility
- from a closed space of learning to a social/educational hub
- recognition of schools as crucial function in the society: establish closer relationships and solidarity among youths, teachers, and communities, creating spaces for coming together, dialogue, and affection.

FOR THE EXTERNAL SOCIETY:

- Augmenting the visibility and network of local realities
- · Schools meet « market» needs.



FROM THEORY TO PRACTICE: ROADMAP TO OPEN SCHOOLING

This part of the module will touch upon the practical aspects that schools have to deal with in order to be able to drive the change towards an open schooling system, and therefore engaging with local stakeholders.

Therefore, here it is presented a roadmap for the implementation of open schooling approaches, offering a clear description of the necessary steps that schools will need to take in order to become Open Schools that bring together as many stakeholders as possible with an aim to produce ideas and solutions that address local issues and challenges.

This Roadmap has been created by another EU project (Open School For Open Societies).

Here you can find the map of the process that leads a school to become an effective Open Schools, fully engaged with local stakeholders.

To implement the Open Schooling approach, the following steps are to be taken: together, dialogue, and affection.

The Open Schooling Roadmap developed by the Open Schools for Open Societies Project focuses on three main phases:

PHASE 1

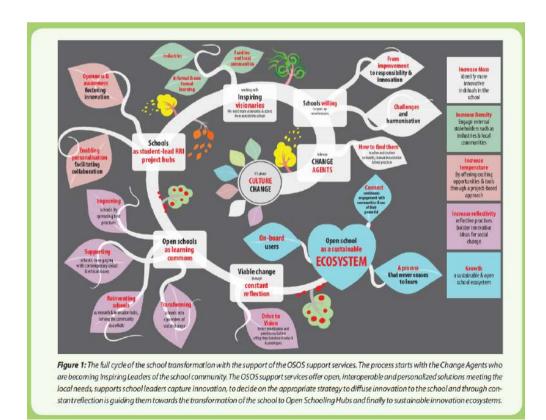
- STEP 1: Assess School openness
- STEP 2: Plan for Action
- STEP 3: Creation of the Change Team
- STEP 4: Empower the Change Team
- STEP 5: Extend learning beyond school classroom
- STEP 6: Assess School progress

PHASE 2

- STEP 1: Plan for Action
- STEP 2: Establish a culture of inquiry, exploration and innovation
- STEP 3: Promote team learning
- STEP 4: Empower the Change Team
- STEP 5: Extend learning beyond school classroom
- STEP 6: Assess School progress

PHASE 3

- STEP 1: Creating a forward looking Open School profile
- STEP 2: Creating opportunities for deeper learning
- STEP 3: Creating viable change





The <u>Support mechanism</u> (for teachers, headmasters, parents, and local stakeholders) A support mechanism has also been created to help the participating schools and their communities in all aspects of the open schooling approach.

The Support Mechanism is based on the presentation of techniques on how schools can make use of the Open Schooling approach and its tools to create projects and activities adapted to school specific needs.

According to the OSOS Project, "Learning environments are no longer silent places. They are full of energy and excitement. In many of today's classrooms, students use technology to collaborate and explore ideas using mobile devices, tablets, laptops or computers or interactive whiteboards. Students are producing evidence of their learning and publishing it on the web.

Teachers also are approaching learning with new ideas about what learning looks like in other environments. Many educators are embracing technology in their practice to motivate students but also to help those developing skills to become lifelong learners leaders. (...).Support mechanisms and learning teaching sustenance and communicating evidence of learning progress and providing insights to teachers, school leaders, policy makers, parents, and, most importantly, the learners themselves.

Assessment procedures can be embedded within learning activities. For example, the development of inquiry activities in the framework of a school project allows the introduction of methods to analyse the effects of the implementation of such activities fostering complex problem-solving abilities. Projects' outcomes are powerful ways of improving curriculum for students, teaching practices and for the school as organization (...) The support mechanism will facilitate the work of the different stakeholders involved in the process. The process starts with the Change Agents who are becoming Inspiring Leaders of the school community".

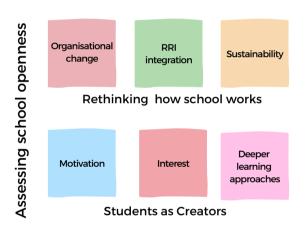
ASSESSMENT OPENNESS

OF

Once the school puts in place the Open Schooling approach, it is useful to have a more reflective moment to understand how the process of openness is working.

The <u>Open Schools for Open Societies</u> project offers a methodology and the tools needed that provide to assess the impact of Open Schooling project at two levels: at the school (organisational change, RRI integration) and at the student level (interest and motivation in science, problem solving).

It also aims to ensure the uptake of relevant stakeholders through the systematic monitoring of Open Schooling Model, strategies and implementation activities.



For further information on the integrated assessment methodology developed by OSOS click <u>here</u>.

ACTIVITY 1: MAP YOUR LOCAL COMMUNITY

Following the Roadmap for Open Schooling, explained in this module, try to map the community around your school:

- What are the projects already in place to connect your school with the neighborhood?
- What are the resources available?
- What possible connections could be done with the school?



Then, after having found a valuable stakeholder that could be relevant for your school, try to draft a project of long-term engagement with your class and this local stakeholder.

ACTIVITY 2: THE KNOWLEDGE'S MARKET

The knowledge's market is a tool for Open Schools that are interested in understand what students' interests can the local community respond to.

The "knowledge's market" can be a useful tool to meet students' needs and interests while connecting them to the local community. Not only is this relevant to open the school system, but it also allows a shift from "frontal teaching" to a student-centred learning approach based on students interests.

In primary and secondary schools, there are very few or no devices in the educational programs aiming to enhance the skills that children have built outside of school. In the classroom, work is almost always focused on purely "academic"/cognitive skills and only students who correspond to this interest are valued. What if the school was also interested in the learning that the students have developed outside its walls? Would she not allow not for everyone to gain confidence in their own learning resources?

Everyone is rich in knowledge that they can teach another: this is the basic idea of the "knowledge's market".

This tool aims to highlight the skills of each student in order to set up a marketplace where students offer their skills and make requests for knowledge they would like to master.

Thanks to the Knowledge's market, teachers can understand what are the requests for knowledge of their students and try to find local stakeholders that can offer such competences.

Following the guidelines of the module, put in place a "knowledge market" in your class.

You will have to ask your students what are the competences they would like to acquire/ the competences they can share, and look if any of these competences can be addressed in the local community.

DEBRIEFING

To wrap up the session, the trainer will facilitate a debriefing moment where participants are encouraged to express their questions, doubts, ideas and feelings toward the topics discussed.





- Open Schools for Open Societies
- The OECD Scenarios for the Future of Schooling
- Science Education for Responsible Citizenship
- Rethinking education: towards a global common good
- <u>Using Public Schools as Community-Development Tools: Strategies for Community-Based Developers</u>
- <u>Equipping the Next Generation for Responsible Research and Innovation with Open</u>
 <u>Educational Resources. Open Courses. Open Communities and Open Schooling: An Impact Case Study in Brazil</u>
- <u>Community Schools: The Perceptions and Practices that Foster Broad-Based</u> <u>Collaboration among Leaders within the Community School Ecosystem</u>
- Connecting schools, families, and communities
- Teaching in Community Schools: Creating Conditions for Deeper Learning
- Inspirations of open school activities
- Open Schooling: Application in the study of the forest
- Science Education for Action and Engagement towards Sustainability (SEAS)
- Open Schooling Roadmap A Guide for School Leaders and Innovative Teachers
- Open Schooling Model



P



INTRODUCTION

An environmental challenge could become a great business opportunity but it is important to include the local community in every step of the process.

The first step is mapping the environmental challenges. How to do it? What resources do we already have in the local community? How to support students to create an entrepreneurial mindset and to become sustainable entrepreneurs?

LEARNING OBJECTIVES

- To give a theoretical basis of environmental protection and sustainable development.
- To explain what SDGs are.
- To notice the possibility of sensitizing students to SDGs within the teaching process.
- To identify environmental problems at the global level and their connections with local environmental challenges.
- To explain how to mapping the environmental challenges in the local communities.
- To analyze an environmental challenge to determine the possible business solution.

LEARNING OUTCOMES

- Teachers will be able to identify and implement elements of SDGs in the teaching process.
- Teachers will be able to identify and critically analyze environmental challenges at the global and local levels and establish the connection between them.
- Teachers will be able to to manage students through the process of mapping environmental challenges in the local community.



Teachers will be able to outline a green idea by using the Canva.

TRAINING SESSIONS

This module consists of 3 mutually independent sessions. The users can choose only one, several or all of them according to their needs.

- Session 1: Environmental protection and SDGs
- Session 2: Global environmental challenges
- Session 3: Mapping local environmental challenges

VIDEO LESSON MODULE 4



ENVIRONMENTAL PROTECTION AND SDGS



INTRODUCTION

The trainer start the introduction to the module by inviting the participants to solve the Earth Day quiz (5 min).



<u>Earth Day Quiz On Climate Change</u> (Video)

After the quiz, participants will discuss climate change, nature protection, and sustainable development.

ENVIRONMENTAL PROTECTION SUSTAINABLE DEVELOPMENT

AND

Environmental protection is a set of measures for the preservation of natural resources, primarily water, soil and air, for human needs or interests, primarily economic and health. It developed in the second half of the XX century, when the growth of economic activities and traffic, increasing world population, consumption of raw materials and fossil fuels and the associated burden of waste began to threaten economic development and the basis of modern civilization.

The first coordinated activity in the field of environmental protection at the global level was the Stockholm Conference on the Human Environment, held in 1972. Since then, several global meetings and conferences on environmental protection have been held, at which various documents have been compiled and adopted.

Since 1992 (UNCED: United Nations Conference on Environment and Development, Rio de Janeiro), much attention has been paid to biodiversity conservation as well as climate change.

Sustainable development (balanced development) means economic development that fully takes into account the impact of economic activity on the environment and is based on renewable sources of goods. The name was introduced at the UN Conference on Environment and Development in Rio de Janeiro in 1992.

The basic premise of sustainable development is: increasing welfare is measured by increasing the quality of life of individuals and the general population, not by increasing the amount of material goods or energy produced or consumed.

Since 2015, the most important document in this area is the United Nations Program on Sustainable Development until 2030, the so-called 2030 Agenda, adopted at the United Nations Summit on Sustainable Development in New York.

The main backbone of the development agenda is the 17 Sustainable Development Goals (SDGs), which are elaborated in 169 closely related sub-goals. It is a key platform for addressing today's most important challenges in their interconnected economic, social, environmental and political-security dimensions.





Do you know all 17 SDGs? (Video)

After watching, the facilitator can turn off the video and ask the participants to write down 17 goals from memory. After writing down, participants can compare how many goals they know by heart. Participants can check the accuracy of their notes by watching the video again.

SUSTAINABLE Development Goals

Participants will study individually or in groups one goal of sustainable development and its targets on the web page:





After studying one goal, teachers will record how they see the possibility of sensitizing students to that particular goal on a large piece of paper.

Each group will briefly present the studied goal.

All groups will then present their notes on possible ways to sensitize students to the sustainable development goal they have studied. Members of all groups will study the exhibition. They will highlight the common ideas, opportunities and problems identified as well as those specific to each goal.

ACTIVITY

Teachers can organize lesson plans and conduct one of them with students using BookWidget according to terms of use.

At the link below teachers can find "10 Readyto-use Lesson Plans on the Sustainable Development Goals" made by Božica Borbaš:



DEBRIEFING

To wrap up the session, the trainer will facilitate a debriefing moment where participants are encouraged to express their questions, doubts, ideas and feelings about environmental protection, sustainable development and sustainable development goals. The trainer will encourage participants to discuss the possibilities of sensitizing students to sustainable development in various subjects.



GLOBAL ENVIRONMENTAL CHALLENGES







INTRODUCTION

Can we restore a better way of life after pandemic? Let's watch the video.



How we can restore a better way of life after the pandemic (Video)

BIGGEST ENVIRONMENTAL THREATS

According to the article <u>seven biggest</u> <u>environmental threats</u> by Vijayalaxmi Kinha the biggest environmental threats are:

- 1. Climate change
- 2. Extinction of species and reduction of biological diversity
- 3. Air and water pollution
- 4. Water crisis
- 5. Reduction of natural resources
- 6. Deforestation
- 7. Soil degradation



<u>Climate Change: We are the problem and solutions?</u> (Video)

After watching the video, there will be a discussion about it, and then the participants will play a game/quiz created by trainers.

A link to the quiz will be placed at a later date.

WORKSHOP

To successfully preserve living beings and parts of the environment, it is important to acquire knowledge about the impacts of our actions on the environment. Participants will be divided into groups. Each group will have the activity to study a summary of one of the selected scientific papers.

We will then need to link the paper's content to the global threats we discussed in this session and the SDGs we became more familiar with in the first session.

Scientific articles:

- How do oil spills impact fiddler crabs?
- How can vultures and wind farms co-exist?
- How do our outdoor activities impact wildlife?
- How can we protect wildlife through ecotourism?

After 25 min the groups will report on the results of their work.

HOMEWORK

1. Investigate whether there are any scientific or newspaper articles on the current state of the environment in his local community and

2. Design five questions to ask his fellow citizens in order to discover local environmental problems.

DEBRIEFING

To wrap up the session, the trainer will facilitate a debriefing moment where participants are encouraged to express their questions, doubts, ideas and feelings toward the topics discussed. Participants can point out in small groups:

- Three new things they have learned,
- Two things concerning their local community and
- · One good idea

Participants can discuss the impacts of the biggest global environmental threats on their local community.

b) outside

SESSION 3 MAPPING CHALLENGES

LOCAL

ENVIRONMENTAL







BIGGEST ENVIRONMENTAL THREATS

This session uses Frank Lyman's "Think-Pair-Share" collaborative teaching strategy, and it is expected to foster in-depth group critical thinking and opportunities discovery.

This approach will help participants to collaborate in groups and come up with new ways of solving environmental challenges whilst relating them to the local context. It is important that participants complete the homework for session 2 and gather their thoughts in advance before joining this session, where they will be expected to share their findings with other group members.

The teacher will lead the session by posing the series of questions listed below in an easy to grasp format.

Participants will report on the research homework conducted. They will be divided into pairs and asked to discuss specific local issues identified, elaborating on needs and expectations, ethical concerns, demographics, the social, cultural, and economic context in which opportunities might be created.

At the end of this activity, each group listed above will have completed the questions worksheet provided.

ACTIVITY 1: TO SCOPE AN ENVIRONMENTAL CHALLENGE AT THE LOCAL COMMUNITY LEVEL

This is a brainstorming exercise that is based on the research homework that has already been done.

Participants will be placed in one of the five groups listed below. Each group will review the environmental issue(s) identified during the discovery research and scope the challenge from the viewpoint of the following groups:

Group 1: Think like a raw material producer

Group 2: Think like a local manufacturer

Group 3: Think like a local retailer

Group 4: Think like a customer/consumer

Group 5: Think like a like technology innovator

Remember

The objective of this activity is for participants to gain a better knowledge of the impact of people using everyday resources and business operations, and how that impact on the local (and global) community/environment and to leverage opportunities for the future.



Questions to address: each group must answer the following questions:

- What are the local environmental issues discovered during your research?
 - In what area is this problem felt?
 - Who and what is affected by this problem (people, living beings, habitats?
- What environmental challenges need to be addressed imminently?
 - How serious are environmental challenges?
 - How big is the scale of the issues (statistical evidence)
- What changes and opportunities can be created for future sustainability? For instance:
 - · Who are the stakeholders concerned?
 - Who / what would benefit most from solving the problem?

ACTIVITY 2: THE SELECT AN ENVIRONMENTAL VALUE PROPOSITION

This activity is about selecting the right challenge/solution to turn into a business opportunity. Each group will be expected to complete the worksheet by summarizing their findings. The output for the activity should be a PowerPoint presentation under the following headings:

- Description of the environmental challenges listed in your group.Value proposition/solution for each environmental challenge.
- Description of the success criteria for each proposed solution.
- Estimate the implementation timeframe for each solution.
- State the possible constraints for each proposition.

Output:

- Each group will be given 5 minutes to present their value proposition to the whole session.
- 2.At the end of all the presentations, every participant will be welcomed to a dot-voting, where the value proposition concept of each group will be voted upon.
- 3. The value proposition with the most votes will be developed during activity 3.

What is dot-voting: "Dot-voting (also known as dotmocracy or voting with dots) is an established facilitation method used to describe voting with dot stickers or marks with a marker pen. In dot-voting, participants vote on their chosen options using a limited number of stickers or marks with pens — dot stickers being the most common".

ACTIVITY 3: TO IDENTIFY KEY STAKEHOLDERS FOR THE VALUE PROPOSITION

Based on the output of activity 2, from your group's perspective:

- Research and identify the various stakeholders that might be impacted or interested in your value proposition.
- State three things that will help your stakeholders to buy-in and support your value proposition.
- Use a stakeholder analysis template to justify your stakeholder engagement approach.

Output:

- 1. A comprehensive stakeholder analysis completed template.
- 2. A clear understanding of stakeholder's appetite and expectation.
- 3. Stakeholder management options.

OPTIONAL HOMEWORK

Based on the outcome of the activities listed above, each participant is expected to carry out desk research and understand what is meant by:

- 1. Green business idea generation
- 2. Minimum viable product.





- The 17 goals: Sustainable Development
- 10 Ready-to-use Lesson Plans on the Sustainable Development Goals
- Seven Biggest Environmental Threats
- 2021: Critical year to 'reset our relationship with nature'
- Climate Change
- Scientific articles for kids
- CASE Competencies for a sustainable socio-economic development
- Good practice examples: projects Oazis for kids and Green fingers 2020 (Urban Gardening and Volunteering)
- Mapping of the local environmental challenges (example 1)
- Mapping of the local environmental challenges (example 2)
- Presentation of the session Mapping Local Environmental Challenges
- Sustainable Business Model Canvas
- Upcycling Club in Osnovna skola Dobrise Cesarica, Zagreb, Croatia
- Upcycling 2021 promotion in Croatia
- What is Project scope?
- What is Stakeholder Management?
- Value proposition canvas
- Observational Study in Statistics: Definition & Examples
- Research Methods: Observations
- Observation Research Methods [A Level Psychology]
- Get it Global: Manual in addressing the SDGS in the work with young people







INTRODUCTION

According to **UNICEF**, "Innovation in education is about more than new technology. It's about solving a real problem in a fresh, simple way to promote equity and improve learning.

Innovation in education comes in many forms. Programmes, services, processes, products and partnerships can all enhance education outcomes in innovative ways. (...) Innovation in education matches the scale of the solution to the scale of the challenge. It draws on the creativity and experience of communities. Innovative education systems play a key role in enhancing learning for all students".

The European Commission underlines the relevance of supporting innovation education."Education institutions, such as schools and universities, have to evolve and adapt to achieve their core mission: to educate students to be successful in a complex and interconnected world that faces rapid technological, cultural, economic and demographic change".

Success as an innovator doesn't just happen. Best innovators are lifelong learners who think outside the box.

Interpersonal skills like collaboration, communication, critical thinking and risk management are important parts of the innovation process. Are we born with the ability to innovate? What is a difference between innovation and invention? How to develop skills important for innovator?

LEARNING OBJECTIVES

- To explain the process of innovation.
- To analyze the examples of good practice.
- To practice the development of innovation from ideas to prototype
- To practice soft skills for innovators.

LEARNING OUTCOMES

- Teachers will be able to analyze a process of innovation from idea to realization of the ideas.
- Teachers will be able to discuss about innovation process and soft skills.



Teachers will be able to develop prototype of their idea and present them.

TRAINING SESSIONS

This module consists of 3 mutually independent sessions. The users can choose only one, several or all of them according to their needs.

- Session 1: How to find more opportunities for innovation
- Session 2: Understanding failure
- Session 3: Practice soft skills for innovators





HOW TO FIND MORE OPPORTUNITIES FOR INNOVATION







THE PROCESS

INNOVATION

"The real act of discovery consists not in finding new lands but in seeing with new eyes"

Marcel Proust

Creativity and innovation are important driving forces for personal development, economic growth, and societal advancement. Especially in the new millennium, when people are facing fast development of new technologies, accelerating changes in life and work and when natural or man-made disasters constantly occur, the importance of creativity and innovation cannot be underestimated. Furthermore, at a global level, our modern society is evolving from the "Information Age" to the "Creativity Age".

"One distinctive characteristic of the creativity age is that economies and societies are turning from "knowledge" to "creativity" as their key characteristic and that economic activity is focused on producing ideas rather than producing things" (Tang, 2021).

In spite of the increasing awareness of the importance of creativity and innovation, scientific research into creativity and innovation is still non-mainstream due to the relatively short history of this field.

In most cases, laypersons and scholars alike tend to use the words "creativity", "innovation", "creative" or "innovative" interchangeably. Indeed, creativity and innovation are two conceptually closely related concepts, but they are by no means identical. Particularly for scholars, it is necessary to differentiate these two concepts, partition their integral elements, and get to know the approaches of how these two complex phenomena are usually measured.

At the most basic level, innovation includes the development of new products, processes or business models that better fit the needs of a group of consumers. This definition just scrapes the surface of innovation's potential. In fact, innovation is a skill that can be taught. For this reason, organizations—and even individuals who innovate effectively—have the potential to make an impact on the local communities, just by being willing to take risks and learn from their mistakes.

Invention refers to the occurrence of an idea for a product or process that has never been made before. Innovation implies the implementation of an idea for a product or process for the very first time.

Creativity can only involve the generation of creative ideas but not necessarily involve the application or implementation of the ideas to



applied settings. Innovation, in contrast, must involve "intentional introduction and application" of new and improved ways of doing things.

Therefore, application or implementation is an inherent component of innovation. Innovation must refer to benefit at one or more levels of analysis, but this is not necessarily the case for creativity. Innovation is not necessarily absolutely novel to the organization, rather it is usually a mixture of emergent processes.



<u>BLOSSOMS - Engineering Innovation</u> <u>and Entrepreneurship</u> (Video)

WORKSHOP: How? Now? Wow!

The process of innovation is based on the following steps:

- Thinking How to find more opportunities for invention?
- Analyzing How do people react to my innovation?
- Doing How to find best solutions?

The how-now-wow matrix helps you categorize business ideas according to:

- Ease of implementation: how easy or difficult are these ideas to be implemented within the current structure, assets, and capabilities of your organization? From a technical and organizational perspective, are these incremental or disruptive ideas?
- Level of newness: are these ideas expected to disrupt the user experience of your final users? From a customer perspective, are these incremental or disruptive ideas?

With this matrix, you'll be able to narrow down your ideas, categorize them, and select the WOW ones. Those ideas that are both innovative and easy-to-implement.



How? Now? Wow! Matrix (Video)

STEP 1

Download the How-now-wow matrix.pdf and print it on an A2 sheet of paper. You can also draw the graph on a flipchart if you can't print.

STEP 2

Grab all your post-its with ideas on them from a previous ideation exercise. Plot the ideas into the wow-now-wow matrix.

STEP 3

Take 3 voting-dots for each person (or use a marker), and vote 3 favorite ideas. After the voting session, select the 3 ideas which received the most votes.

STEP 4

Step back and analyze the results. In an ideal scenario, your "wow" and "how" fields should have the most ideas - and the most valuable ones

ACTIVITY

Choose one problem from your local community and then answer the following questions by using the How-Now-Wow method.

Remember, there is no problem without solutions!

- Who are the possible partners in my local community (Who)?
- What is the innovation about (What)?
- Where does the innovation take place (Where)?
- When does the innovation take place (When)?
- Why is this innovation the best solution (Why)?

DEBRIEFING

To wrap up the session, the trainer will facilitate a debriefing moment where participants are encouraged to express their questions, doubts, ideas and feelings toward the topics discussed.



UNDERSTANDING FAILURE



THE EXPERIMENTATION PROCESS

"Ever tried. Ever failed. No matter. Try again. Fail again. Fail better"

Samuel Beckett

James Joyce noted rather poetically that "mistakes are our portals of discovery." They stimulate us to look beyond our narrow cocoon and encourage lateral thinking. They invite a fuller exploration of the periphery, that vast domain outside our area of focus where treasure may be hidden.

Thomas J. Watson, Sr., who founded IBM, understood this deeply when he said: "So, go ahead and make mistakes. Make all you can, because that's where you will find success: on the far side of failure." But these great examples are the exception to the rule.

Research shows that most organizations are not very good at accepting failure. Most just want to eliminate errors altogether. This is because most managers pray at the altar of results rather than innovation.

In fact, failure itself doesn't lead to innovation, it's more about how you deal with failure that matters. We will certainly not tolerate if the engineers who build our city bridges or doctors who treat us fail in what they do. But if you are breaking new ground, it is inevitable to fail at some point and often it's part of the experience.

So, a failure culture is not an excuse for delivering poor quality of known territory. Instead, it is linked to new ideas and approaches to do things differently. After every failure, it's necessary to dive deep into their reasons and figure out how to avoid the misstep next time. Changing the corporate "risk failure" language from and learn" "experiment becomes and indispensable. Below we present approaches to how failure can be used as a lever for innovation.

Successful companies must strike a balance between performance and learning cultures. A key obstacle is our deeply ingrained aversion to failure. Your psyche registers pain more strongly than loss. So we need to work on reframing failure as perhaps "time-released" success. Just view it as the bitter medicine that we need for innovation, and then take a few gulps.

Are we born with an ability to be innovative or is it a skill that can be taught?



Failing intelligently (Video)



FROM INNOVATION TO INVENTION

"An invention is something that has never been made before, or the process of creating something that has never been made before" The Cambridge Dictionary.

Invention creates something new, innovation creates something that sells: the Cambridge Dictionary defines an invention as "something that has never been made before, or the process of creating something that has never been made before". By definition, it has to be something entirely new, so an invention is something that has never been done before. To invent something is to discover a new thing.

Meanwhile, to innovate means "to use a new idea or method". To innovate is to introduce something new to the market, to manipulate existing inventions and turn them into a product or process that is of use in the real world.

It's not difficult to see how tricky it can be to distinguish between these two concepts. After all, "new" is the keyword for both innovation and invention. But the essential difference is that inventors create something completely original. This could, for example, be a technical idea or a scientific process.

Of course, inventions also have to be proven to work. You can't simply come up with any new idea - you have to be able to show that you can make it a success. That's where innovation comes in. Innovators might come up with something that is not new at all. Rather, they operate within the realm of what already exists and is readily available to work with. Innovators use processes or platforms that have already been invented to create a commercially successful product or process that will satisfy a market need and have customers ready to queue.

A product or process is inventive if it has never been done before - whether it is innovative depends on whether users will get a real value out of it.

Do you know any story how a failure become a success?



Four failed inventions that changed the world (Video)

ACTIVITY

Present your ideas through rapid prototyping (sketching, paper and digital).

Individual or team working of making prototype by using sustainable materials (recycling, upcycling, paper, digital). Trainer should support creativity, discussion and development of soft skills.



Rapid Prototyping: Sketching (Video)



Rapid Prototyping: Digital (Video)

QUIZZES

Let's discover misconceptions about being innovative by playing Kahoot!



For those who want to check a knowledge and find more go to the OUTSIDE Innovation on <u>Quizziz</u>.



SOFT SKILLS FOR INNOVATORS







COLLABORATION, CRITICAL THINKING, LEADERSHIP AND COMMUNICATION SKILLS

Collaboration, critical thinking, leadership and effective communication are some of the most important soft skills for modern innovators.

Let's learn more about Innovation Skills for the Future.

The collection of skills could be grouped together and described as "innovation skills" since all are vital to developing and launching an innovation. It takes creative problem solving, leadership, strategic thinking, and effective communication.

There are many "micro-skills" that can make up these more general skills as there are many different modes of communication to master for innovation success.

The key skills innovators should master are:

- · Analytical thinking
- Work collaboratively
- · Motivation/drive
- Adaptability
- · Quantitative skills
- Decision making
- · Risk-taking
- Industry related work experience
- Global mindset
- Entrepreneurship

WORKSHOP: Creation of a drama Sketch

Present a few situations where soft skills are the most important resource we need for success. Every group should prepare two different scenarios. One scenario is without success but another shows how improvement of soft skills can bring success.

For more inspiration let's watch two scenarios:



Scenario 1 (Video)



Scenario 2 (Video)

What is active listening? How to improve listening skills? Compare these two videos.





Remember!

- Fail forward, learn from your mistakes, and be persistent!
- Follow your passions
- Think: always be looking for the opportunities for innovation
- Analyze: evaluate the potential of your invention (market research)
- Do: Prototyping, Product Development, Marketing, Pitching, Launching





- Strengthening education systems and innovation
- Innovation in education
- Engineering Innovation and Entrepreneurship
- How? Now? Wow! Matrix
- Creativity and Innovation: Basic Concepts and Approaches
- Failing Intelligently
- Rapid Prototyping: Sketching and Paper Prototyping
- Rapid Prototyping: Digital
- The Big Bang Theory Active Listening
- Example of Active listening
- Innovation Skills for the Future: Insights from Research Reports.
- Soft skills: Scenario 1
- Soft skills: Scenario 2





INTRODUCTION

This module examines ways of promoting green entrepreneurship as part of a green business strategy for sustainable development.

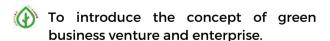
"Green business strategy refers to the tendency to integrate environmental issues in business strategy, across sub-business functions such as manufacturing, supply chain, finance, human resources and marketing in international markets" (Banerjee, 2002).

Participants should be taught how to develop a green business plan that focuses on making positive contributions to the environment. They should be introduced to various types of green businesses, shown how to generate a green business idea, taken through the process of developing a green business strategy and writing a green business plan.

This module is shaped mainly by the EntreComp framework. It is structured to develop competencies with the foundation, intermediate, and advanced segments of the EntreComp progressive model. This involves direct supervision, building independence, taking responsibility, and at the expert stage, if possible, driving transformational innovation and growth (EntreComp into Action).

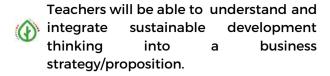
For this module, participants who engage and complete the session activities will be able to develop a green venture idea which potentially attracts venture capital investment.

LEARNING OBJECTIVES



- To explore ways to develop a green business venture.
- To apply strategic business thinking to a green venture concept
- To develop a BMC for a green business idea.
- To explain the green entrepreneurial mindset and business activities.

LEARNING OUTCOMES



Teachers will be able to use a combination of idea generation techniques to formulate a green business idea and use a decision matrix to validate a green business value proposition.

Teachers will be able to develop a BMC that is based on a green business strategy that aims to reduce a negative impact on the environment.

Teachers will be able to develop a wellstructured and justified business venture for a startup incubator.

TRAINING SESSIONS

This module consists of 4 sessions of interrelated topics:

- Session 1: Green business enterprise & sustainable development
- Session 2: Green idea and opportunity generation
- Session 3: Developing a green business model canvas
- Session 4: Green entrepreneurial mindset and business activities





SESSION 1 UNDERSTANDING ENTERPRISE DEVELOPMENT

GREEN &

BUSINESS SUSTAINABLE







ICE ACTIVITY

BREAKING

TEACHER

It is important to get participants interacting right from the start as early as possible during the session therefore this icebreaker is set to facilitate discussions on topics relating to sustainable development and green issues, and to generate ideas for solving some of the identified issues.

GOALS

By the end of the icebreaker session, participants be able to comment on what theyshould have identified one sustainable thing they do at home and something that isn't quite sustainable. Participants spend 2 minutes to say what they do at home that is or isn't sustainable? This is an icebreaker that should get participants talking about green issues and thinking about their impact on the environment.

FORMAT

Split into pairs, introduce yourself and discuss one thing you each do at home that you consider sustainable, and one thing you each do at home that could be done more sustainably. Rotate pairs and repeat (like speed dating).

Bring back to the group and feedback. For the less sustainable things, ask what could be a more sustainable alternative?

SHORT QUIZ

To get participants thinking more about environmental issues, run a short online (or paper-based) quiz about statistics. For instance, "how many trees are cut down every day for toilet paper?"

EXPLORING BUSINESS STRATEGIES, SUSTAINABILITY AND THE SDGS:

- Trainer provides a brief overview of the module, the sessions, and the activities.
- Trainer hands out necessary learning materials and makes clear where to find the learning resources and other OERs.
- Trainer gives a short slide presentation of topics and fosters discussion and interaction.
- Trainer runs a quiz session at the end to consolidate knowledge and address gaps
- Trainer will facilitate the group-based activities and the feedback process.



According to Lindner (2018), entrepreneurs are the ones who mobilise the market and prompt socio-economic dynamics by leveraging innovative ideas, products, and services. For this reason, the market and society need people with entrepreneurial competences.

The OUTSIDE project sees the embedding of entrepreneurship education and skills development in the early stages of the green business strategy. Here in this session, entrepreneurship activities and workshops are intended to orientate participants towards a sustainable business mindset. For OUTSIDE, green entrepreneurs are value-oriented people who are willing to participate in conversations about a green and sustainable future. These are people who want to change the current narrative and have green-thinking integrated in today's market economy.

Thus, for a green business strategy, players (skilled entrepreneurs) must act in a socially responsible way, demonstrating awareness of trends in environmental concerns, and understanding the market forces that influence them, and how they can shape them for a sustainable future.

By sustainability, OUTSIDE refers to United Nations Brundtland Report: "Our Common Future" (1987), which defines the term as, "Meeting the needs of the present without compromising the ability of future generations to meet their own needs". By embedding sustainable entrepreneurship within this module, participants are provided the opportunity to develop behaviours, attributes and competencies that would help develop a value proposition that has green thinking at the core of the business strategy.

In a sense, this module should bring about increased confidence for participants, as they acquire and develop entrepreneurial competences. They become more self-aware, self-motivated, and determined at finding and solving environmental issues that can be turned into a real business idea.

Participants would find this module rewarding as they begin to see themselves as influencers who can devise viable, green business propositions. This is the very mission of OUTSIDE, to help participants acquire innovative skills through the creation of entrepreneurial projects based on sustainable development.

Teachers should prepare to discuss the definition of an enterprise which according to the Enterprise and Entrepreneurship Education: Guidance for UK Higher Education Providers - January 2018, is defined "as the generation and application of ideas, which are set within practical situations during a project or undertaking".

Teachers should also aim to draw attention to the difference between social entrepreneurship, which is driven by solving social or cultural issues: entrepreneurship which seeks to leverage a positive impact on the natural environment; digital entrepreneurship, a way of digital transformation of products and services; and intrapreneurship, which calls for application of enterprise behaviours. attributes and skills within an existing microorganisation.

ACTIVITIES

ACTIVITY 1: TEAMWORK AND INTERACTION - DESK RESEARCH, CASE STUDY AND PROBLEM IDENTIFICATION

Trainer asks participants to identify which SDGs are specifically about environmental issues and discuss them in an open forum. With reference to the SDG about environmental issues, participants are asked to work in groups and provide examples of business ideas, innovations, and green practices that they feel could help the

For instance:

achievement of the SDG.

- Life under water Line fishing, fish farming vs trawling.
- Renewable and clean energy Wind farms, solar panels.
- Responsible consumption and production - Recycling, local produce, biodegradable materials.

Teams create presentation slides to define the sustainable issues identified, quantify the impact of the problem, and prioritise what needs fixing first.



Output

Group discussion, verbal presentation, and formative feedback:

- 1. Teacher to facilitate this session and encourage co-creation, inactivity.
- 2. Findings should be listed under the following subheading: a) problem scope, b) impact on society, and c) problem ranking.
- 3. Each team should appoint a spokesperson to present on behalf of their team.
- 4. All team members should participate in the presentation and discussion.
- Participants should be encouraged to take a picture of the various contributions showcased (or share files), to add to their individual e-journal and reflect on in 100 words.

Feedforward: Trainer provides formative feedforward to teams

- 1. Teacher celebrates team success and acknowledges creativity and critical thinking.
- Teacher reminds participants of the link between SDG theory, concepts, and reallife scenarios.
- 3. Teacher asks teams to discuss merits of team working and group-think.

Participants would find this module rewarding as they begin to see themselves as influencers who can devise viable, green business propositions. This is the very mission of OUTSIDE, to help participants acquire innovative skills through the creation of entrepreneurial projects based on sustainable development. Teachers should prepare to discuss the definition of an enterprise which according to the **Enterprise** Entrepreneurship Education: Guidance for UK Higher Education Providers is defined "as the generation and application of ideas, which are set within practical situations during a project or undertaking". Teachers should also aim to draw attention to the difference between social entrepreneurship, which is driven by solving social or cultural issues; green entrepreneurship which seeks to leverage a positive impact on the natural environment; digital entrepreneurship, a way of digital transformation of products and services; and which calls intrapreneurship, for the application of enterprise behaviours, attributes and skills within an existing microorganisation.

OPTIONAL ACTIVITY

Aim of the activity: Participants to consolidate what they have learnt through the process of revision and self-managed learning.

Although the homework activity set here is optional, participants are encouraged to have a go at studying and completing some of the tasks before session 2.

Note that the output of session 1 will feed into the activities laid out in session 2.

- Do an internet search on review what is meant by idea generation.
- Find a video that teaches how to complete an "idea napkin".
- Start considering scanning through this online material about green business.
- Watch the longer educational video on Sustainability Documentary
- Record your findings and questions in your e-journal.

DEBRIEFING

Aim of the debriefing session: teachers helps students to reflect teamwork and discuss the value of research and problem definition. It must be reiterated that sustainable issues must be evidenced-based.

To wrap up the session, the trainer will facilitate a debriefing moment where participants are encouraged to express their questions, doubts, ideas and feelings toward the topics discussed.

Guide:

- Recap on learning objective and outcome
- Teacher uses Q&A session to summarise training session - (Q&A, quiz, or case study).
- Teacher highlights new ideas generated by teams and closes gaps in knowledge about green issues.
- Teacher gets participants to review any strong opinions and issues of ethics that come up.
- Teacher diffuses possible tension amongst teams or team members regarding green issues.
- Teacher formalises learning by highlighting new green business ideas and possibilities.
- Trainer encourages personal reflection and links sessions to the next session.



SESSION 2 GREEN IDEA GENERATION

OPPORTUNITY



AND

INTRODUCTION

This session relies heavily on the output from Session 1 as the input and starting point for this session. Learnings gained from the previous session must be used in this session. Where possible, the trainer is encouraged to split the group into four teams for activity 2. That way, each team will work using one idea generation method and at the end of the session, these methods can then be critiqued and reflected on as a group in an open discussion.

Thinking outside the box is one of the phases in the OUTSIDE framework, where participants are encouraged to look at the world around them in a nonconventional way, weighting up alternatives and welcoming divergent views in order to generate new ideas. Participants will be encouraged to question the norm and not focus purely on the obvious.

To do so, the green idea and opportunity generation session calls for participants to become "critical thinkers" and still be able to argue rationally, to present ideas in a logical format, and draw conclusions in an informed way.

With the phrase "critical thinker", this session uses the definition provided by Angelo (1995), suggesting that it "involves the intentional application of rational, higher-order thinking skills such as analysis, synthesis, problem-recognition and problem-solving, inference and evaluation." T.A. Angelo. (1995). "Classroom assessment for critical thinking." Teaching of Psychology, 22(1), p.6)

Thus, in the brainstorming exercise participants are encouraged to; investigate an environmental issue, weigh up the evidence for and against it the issue; test the evidence through cross-examination, comparing and contrasting; consider alternative perspectives and question traditions; reach an informed opinion that is evidence-based before drawing conclusions.

The essence of the session is to get participants working in teams to engender "group-think", where team members commit to the same problem-solving goal and encourage each other's creative ability and talents. The outcome of the session should give participants options that can be further analysed in order to become the selected value-add proposition.



By value proposition, this module describes it as the bundle of products and services that create value for a specific customer segment, which is the reason why customers commit to the obligation. For the customer, the proposition offered adds value, solves a problem, or satisfies a need for that specific segment -- This value proposition definition is adapted from "Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers", Osterwalder, A, & Pigneur, Y 2010, John Wiley & Sons, Incorporated, Chichester. Available from: ProQuest Ebook Central

ACTIVITIES

Based on the outcome of Session 1 (Understanding Green Business Enterprise & Sustainable Development), participants work in teams to generate a green business idea that solves a real-life challenge.

ACTIVITY 1: GREEN IDEA AND OPPORTUNITY GENERATION

Teacher splits the group into four teams for the brainstorm exercise.

- Reflect and discuss the green growth and circular economy.
- Reflect on the EntreComp competencies and discuss how to apply the steps).
- Generates three separate green business ideas.
- For each idea, complete the OUTSIDE idea approach template (please see the section OERs & references).

Teams are to research and reflect on existing products and services that are not environmentally friendly and suggest ways to improve. Think about common daily or household items, or things in the local community, or from an ethical standpoint.

Example topics:

- Food production farming (water, fertiliser, pesticide, animal welfare, soil), animal products, transport, food waste, restaurants, transport, packaging, energy for cooking.
- Fashion materials, waste, microplastics, packaging, fast fashion, second-hand, circular economy.

- Household items single use (straws, wet wipes, coffee pods, tea bags), toiletries (shampoo, soap, makeup, toothbrushes, plastic waste), cleaners (laundry, dishwasher, water pollution).
- School Energy (lights, heating, computers, smartboards), stationary, green spaces, transport (traffic, cycle infrastructure, buses, trains, safe roads, air pollution).
- Holidays Air travel, hotels, camping.

ACTIVITY 2: OPTIONS ANALYSIS AND IDEA SELECTION

Each participant (or team) completes an ideation template and presents it to the group for open discussion and idea selection.

- 1. Review and discuss the merits of each green idea generated.
 - Watch the <u>video</u> on how to complete a decision matrix table.
 - Use the Outside decision matrix template to rate the three green ideas.
 - Review and select the "best fit" green idea.
 - Selection justification of the top idea/"best fit" green idea.
- 2. Teacher will facilitate this session in an inactive way and give formative feedback.
- 3. Participants should be encouraged to take a picture of the various contributions showcased (or share files), to add to their individual e-journal and reflect on in 100 word.

ACTIVITY 3: VERBAL TEAM IDEA PRESENTATION

- 1.As a team, create slides to show your findings for Activity 1 and 2.
- 2. Each team should appoint a spokesperson to present on behalf of their team.
- 3. Team members should prepare to address questions and further the discussion.
- 4. Reflection: Participants should be encouraged to take a picture of the various contributions showcased (or share files), to add to their individual e-journal and reflect on in 100 words.

OPTIONAL ACTIVITY

Aim of the Activity: it helps participants to consolidate what they have learnt through the



process of revision and self-managed learning.

Although the homework activity set here is optional, participants are encouraged to have a go at studying and completing some of the tasks before session 3. Note that the output of session 1 and 2 feeds into the activities set out in session 3.

- 1. What's the difference between enterprise, entrepreneurship, entrepreneurial mindset?
- Do more study on how to translate a VPC into a BMC.
- 3. Review journal articles on what is referred to as a green business
- 4. Record your findings and questions in your e-journal.

DEBRIEFING

Aim of the debriefing session: teacher helps participants to reflect teamwork and discuss ideas generated or potential solutions found.

To wrap up the session, the teacher will facilitate a debriefing moment where participants are encouraged to express their questions, doubts, ideas and feelings toward the topics discussed.

Guide:

- 1. Recap on learning objective and outcome
- 2. Teacher uses Q&A session to summarise training session (Q&A, quiz, or case study).
- 3. Teacher highlights new ideas generated by teams and closes gaps in knowledge about green issues.
- 4.Teacher gets participants to review any strong opinions and issues of ethics that come up.



SESSION 3 DEVELOPING A GREEN BUSINESS MODEL CANVAS



INTRODUCTION

This session relies heavily on the output from sessions 1 and 2 as the input and starting point for this session. Learnings gained from the previous sessions must be developed in this session. Where possible, the teacher is encouraged to split the group into four new teams for the purpose of activity 3. This way, participants will create new synergies and team collaboration. Whilst session 1 focuses on tools and techniques for ideating and mapping the environment to help participants understand the context in which they wish to make a change, session 2 challenges the participants to think outside the box and come up with innovative ideas, options, and opportunities that creates value for the customer in a sustainable manner.

Session 3 takes participants into a collaborative space where they draw on their previous learnings and develop a green business model canvas that integrates sustainable ethical values into the business. The teacher should look to make this session a project-based and highly interactive session with the possibility of engaging real users or the local community.

To embed the value proposition (output of session 2) in a green business model canvas, it it is important for participants to understand the components of the canvas.

It is in this session that the value proposition canvas is integrated into the business model canvas.

The teacher should therefore cover these aspects during the session:

- Customer Segments are the groups of people and/or organizations a company or organization aims to reach and create value for with a dedicated value proposition.
- Value Propositions are based on a bundle of products and services that create value for a customer segment.
- Channels describe how a value proposition is communicated and delivered to a customer segment through communication, distribution, and sales channels.
- Customer Relationships outline what type of relationship is established and maintained with each customer segment and explains how customers are acquired and retained.
- Revenue Streams result from a value proposition successfully offered to a customer segment. It is how an organization captures value with a price that customers are willing to pay.
- Key Resources are the most important assets required to offer and deliver the previously described elements.



- Key Activities are the most important activities an organization needs to perform well
- Key Partnerships shows the network of suppliers and partners that bring in external resources and activities.
- Cost Structure describes all costs incurred to operate the business model.
- Profit is calculated by subtracting the total of all costs in the cost structure from the total of all revenue streams.

ACTIVITIES

Aim of the activities: participants work in teams to formalise a business value proposition that creates positive social consequences, translating and representing this in a BMC.

ACTIVITY 1

The activity requires participants to review the VPC Template, discuss it in an open forum and then complete on for the green business idea generated in Session 2.

- 1. Team reviews the VPC template to understand its usefulness for strategic thinking.
- 2. Team completes VPC template for the green business idea generated in session 2.
- 3. Team pins up an A3 VPC in class for an open discussion. All participants contribute to the discussions.

ACTIVITY 2

The activity requires participants to critique the 10 building blocks of the BCM and complete a BMC.

- Team reviews the BMC template to understand its usefulness for strategic thinking.
 - Why is the BMC such a useful template for defining a new business venture?
 - Why is it important to define and understand the Customer Relationships aspect of the BMC?
- Team reviews and discusses the 10 building blocks of the BMC
- Team completes BMC template for the green business idea generated in session 2.
- Team pins up an A3 BMC in class for an open discussion. All participants contribute to the discussions.

OPTIONAL ACTIVITY

Aim of the activity: it helps participants to consolidate what they have learnt through the process of revision and self-managed learning.

Although the homework activity set here is optional, participants are encouraged to have a go at completing the task because it would help to understand session 4 better.

For the homework:

- 1. Carry out a desk research and study what is meant by the following terms:
 - green business enterprise
 - o green entrepreneurship, and
 - o green entrepreneurial mindset.
- 2. What are the attributes of a proenvironmental entrepreneur?
- 3. Write up your answer in your e-journal and be ready to share your thoughts in the next training session.

DEBRIEFING

Aim of the debriefing session: teacher helps participants to reflect teamwork and discuss ideas generated or potential solutions found.

To wrap up the session, the teacher will facilitate a debriefing moment where participants are encouraged to express their questions, doubts, ideas and feelings toward the topics discussed.

Guide:

- 1. Recap on learning objective and outcome
- 2. Teacher uses Q&A session to summarise training session (Q&A, quiz, or case study).
- 3. Teacher highlights new ideas generated by teams and closes gaps in knowledge about green issues.
- 4. Teacher gets participants to review any strong opinions and issues of ethics that come up.
- 5. Teacher diffuses possible tension amongst teams or team members regarding green issues.
- 6.Teacher formalises learning by highlighting new green business ideas and possibilities.
- 7. Teacher encourages personal reflection and links sessions to the next session.



GREEN ENTREPRENEURIAL MINDSET



INTRODUCTION

This session relies heavily on the output from sessions 1 to 3 as the input and starting point for this session. Learnings gained from the previous sessions must be developed in this session.

The activity for this session must be teambased.

It was Jean Baptiste Say (1767 - 1832) that coined the word entrepreneur from "entreprendre", meaning to undertake an endeavour, a project that requires means, effort, and coordination. This is seen as a social function of arbitration, which is the art of shifting resources from one location to another to help the economy to adjust and develop its production. It is the entrepreneur who takes up this mantle in society by managing new deployment of resources and creating new efficiencies. The entrepreneur is seen as an undertaker.

A second school of thought, Frank Hyneman Knight (1885 - 1972), the founder of Chicago School of Economics, a specialist on the theory of risk and uncertainty, argues that an entrepreneur takes in premiums in return for their willingness to take on risks, as opposed to people in safe jobs. He asserts that an entrepreneur fulfils a social function of risk-taking and is motivated by profit as reward for risk-taking. The entrepreneur is seen as a risk taker.

On the other hand, Joseph Schumpeter (1883 -1950), one of the founders of Evolutionary Economics. sees the function of entrepreneur as turning inventions into innovations by introducing new products, new production methods, new services, new forms of business models, new organisations and creating new markets, thereby destroying the existing market balance through creative destruction. In Schumpeter's mind, the entrepreneur is motivated by a drive for attaining leadership, accomplishment, recognition, and changing the world. The entrepreneur is seen as a creative hero.

The three views agree that entrepreneurial activity is an important driver for innovation, job creation, and strengthening economic growth and market diversity.

It is the same reason why the priority of the OUTSIDE mission is to assist schools across Europe (and beyond) acquire to entrepreneurial skills through the creation of pro-environment and sustainable projects. OUTSIDE subscribes to the initiative to integrate environmental and sustainability in entrepreneurship issues education curricula.

Thus, in this session, participants will engage in an activity that will grow their entrepreneurial mindset for a business venture (the output of session 3).



This ideology is underpinned with reference to the open access <u>IOP Conference Series</u>: <u>Earth and Environmental Science - Development of the green entrepreneurial mindset through modern entrepreneurship education</u>.

This session looks at the transformational steps that an entrepreneur adopts when evaluating old realities, envisioning new concepts, and engineering new realities. Envisioning new concepts is not the same as having a viable plan of action. Visions are imaginations, feelings, and intuitions of how a new state of reality would look like. Thus, participants will learn, like entrepreneurs, how to combine their vision with their passion for a greater purpose, and in this case, in a way that generates profitability and is environmentally sustainable.

ACTIVITIES

Participants collaborate and explore ways to reduce strains on natural resources, increase eco-friendly clean and renewable energy, and innovate green business models to make them more sustainable.

ACTIVITY 1: TEAMWORK WHERE PARTICIPANTS CARRY OUT ONLINE RESEARCH. TEAMS TO SHARE RESEARCH TASKS AMONG MEMBER TO MAXIMISE TIME

- · Each team selects one video to review.
- Team critique one video each and addressing the given question.
- What skills and mindset must be developed to run a green business venture?
- Relate this to your green business proposition laid out in their completed BMC from session 3.

ACTIVITY 2: TEAMS GIVE A PITCH AS A SMALL START-UP VENTURE THAT IS PROENVIRONMENT AND COMMITTED TO SUSTAINABLE DEVELOPMENT

Each team will produce a professionally looking, glossy-type pitch deck. Review and update your team's VPC and the BMC produced during session 3. Based on the team's BMC, prepare a pitch presentation that covers the following:

- business name and logo
- green mission statement

- problem definition and research
- ideation and options analysis
- · value proposition canvas
- · business model canvas
- entrepreneur skills and competencies
- References

Questions to think about when working in teams:

- 1. What is your product or service; what value does it create?
- 2. Who is your market?
- 3. What is your revenue model?
- 4. Who is behind the company?
- 5. Who is your competition?
- 6. What is your competitive advantage?

Output: A well-structured and justified business venture for a startup incubator.

OPTIONAL ACTIVITY

Aim of the activity: it helps participants to consolidate what they have learnt through the process of revision and self-managed learning.

Although the homework activity set here is optional, participants are encouraged to have a go at completing the task.

- 1. Review all three sessions and write a 750-word personal reflection in your e-journal.
- To do this, access the internet and find the Gibbs' Reflective Model. Use the Gibb's (1988) model to develop and write your reflection:
 - Description: what happened?
 - Feelings: what were you thinking and feeling?
 - Evaluation: what was good and bad about the experience? What went well and what difficulties did you encounter?
 - Analysis: what sense did you make of the challenging situations you faced?
 - Conclusion: what else could you have done?
 - Action plan: how would you apply this learning in future study or employment?
 - Find more details here.



GREEN BUSINESS VALUE PROPOSITION PRESENTATION

This activity is set to check that the participants have achieved the overall learning outcome for this module.

- The activity can be undertaken as a group task or by a single participant.
- Create a high quality, professional sets of slides that demonstrate your understanding of how to develop a green business idea by following this steps laid out in this module.
- You should aim to provide a personal reflection on your learning, highlighting new things you have learnt, what was challenging, and what else you would have wished to learn on this module.

Create a set of PowerPoint presentation slides that addresses the following:

- Slide 1 OUTSIDE branded page showing; group business name and logo; mission statement; group project title; names of participants; session details and date.
- Slide 2 Demonstrate understanding and awareness of SD & green business.
- Slide 3 Present biodiversity idea strategy using the Idea Model.
- Slide 4 Showcase BMC, giving full green business justification.
- Slide 5 Present answers to session 4 group activity on this slide.
- Slide 5 Provide group reflection on pros and cons of the sessions.
- Slide 6 Provide referencing and any other useful resource found

DEBRIEFING

Aim of the debriefing session: teacher helps participants to reflect teamwork and discuss ideas generated or potential solutions found. To wrap up the session, the trainer will facilitate a debriefing moment where

facilitate a debriefing moment where participants are encouraged to express their questions, doubts, ideas and feelings toward the topics discussed.

Guide:

- Recap on learning objective and outcome
- Trainer uses Q&A session to summarise training session - (Q&A, quiz, or case study).

- Trainer highlights new ideas generated by teams and closes gaps in knowledge about green issues.
- Trainer gets participants to review any strong opinions and issues of ethics that come up.
- Trainer diffuses possible tension amongst teams or team members regarding green issues.
- Trainer formalises learning by highlighting new green business ideas and possibilities.
- Trainer encourages personal reflection and links sessions to the next session.



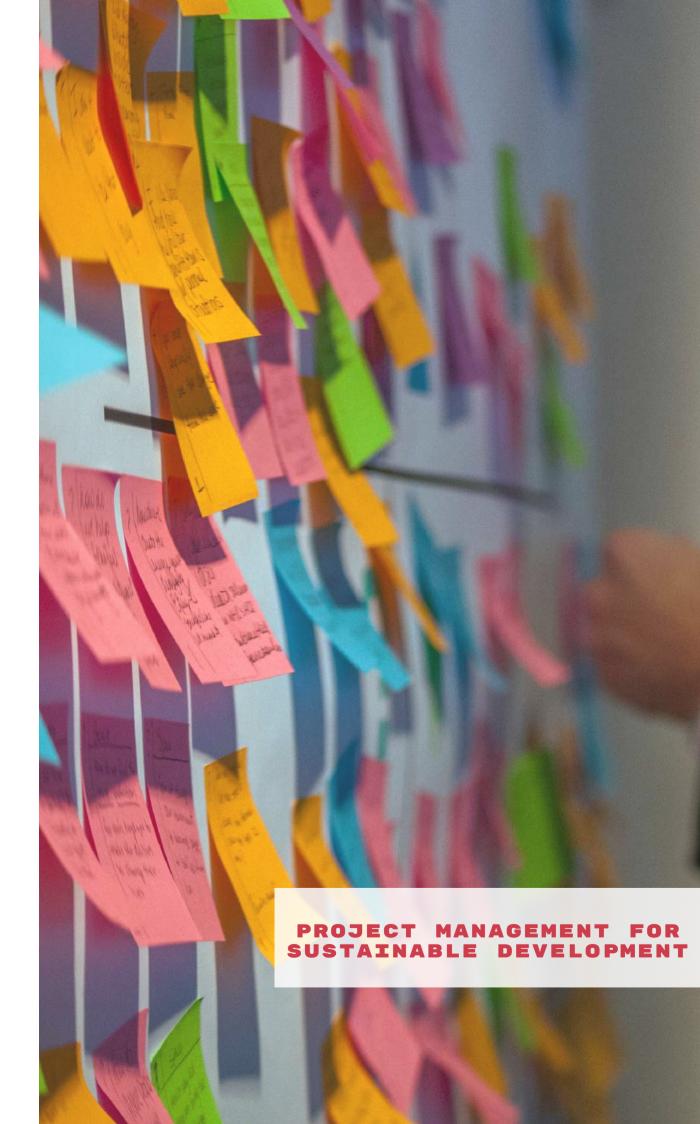


- What is Sustainable Development
- Sustainability Short Story
- Short infographic of SDGs
- Introducing SDGs music video
- Introduction to EntreComp Framework
- Interactive overview of SDGs
- Green growth and circular economy
- Idea generation and optimisation
- · Green growth and circular economy
- EntreComp: The Entrepreneurship Competence Framework
- Idea Generation and Optimisation
- Idea Napkin Overview (third-party)
- SCAMPER exercise with spoons
- SCAMPER exercise with chocolate
- VPC Overview
- Double Diamond Overview
- · Idea Napkin (requires sign-in)
- VPC Template (requires sign-in)
- Double Diamond Framework template
- A European Green Deal
- A new Industrial Strategy for a globally competitive, green and digital Europe
- Business Model Canvas Video
- Business Model Canvas Template
- The CASE Knowledge Alliance
- The CASE Knowledge Alliance
- Value Proposition Canvas Template
- Business Model Canvas Template Google Sheets
- Business Model Canvas: Katapult Aanjagers Van De Kennis Voor Morgen



- Business Model Canvas: S3P Agri-Food Working Committee Meeting
- A European Green Deal
- A new Industrial Strategy for a globally competitive, green and digital Europe
- Business Model Canvas Video
- Business Model Canvas Template
- The CASE Knowledge Alliance
- Value Proposition Canvas Template
- Business Model Canvas Template Google Sheets
- <u>HubSpot provides a set of free persona templates in ppt form (must sign-in to access). Also comes with instructional slideshow (advanced level useful for teacher, not classroom)</u>
- Business Model Canvas: Katapult Aanjagers Van De Kennis Voor Morgen
- Business Model Canvas: S3P Agri-Food Working Committee Meeting
- 39 Green Business Ideas for Sustainable Entrepreneurs
- Entrepreneurial Mindset
- Green entrepreneurship by Lorenzo Tosini
- New business models by Mario Calderini
- How to Cultivate an Entrepreneurial Mindset
- Sustainable Business Model Innovation
- 25 of the best Eco School activity ideas
- <u>Green-Schools programme</u>





INTRODUCTION

The module aims to provide links between the concept of project management and sustainable development.

In particular, it helps learners develop the skills needed to manage green projects, with a special focus on:

- · Project management skills
- the promotion of a team-based approach to supporting a sustainability activity
- the development of communication skills.

The module also intends to provide participants with some practical tips and activities that can be used to encourage environmental awareness and build excitement around the sustainability activities.

LEARNING OBJECTIVES

- To understand the principle of project management.
- To build and run a successful "sustainable team".
- To improve the team's communication skills.
- To manage green projects.
- To encourage environmental awareness and motivation towards sustainability.

LEARNING OUTCOMES

- Teachers will be able to understand the concept of "sustainable team".
- Teachers will be able to build and run successful sustainable teams.
- Teachers will be able to establish an effective communication environment.
- Teachers will be able to manage green projects.
- Teachers will be able to adapt and use green and environmental teambuilding activities.

TRAINING SESSIONS

This module consists of 4 mutually independent sessions. The users can choose only one, several or all of them according to their needs.

- Session 1: Getting started with project management
- Session 2: How to create and run sustainable team
- Session 3: How to manage a green project
- Session 4: How to boost internal and external communication skills of the team
- VIDEO LESSON MODULE 7



SESSION 1 GETTING STARTED WITH PROJECT MANAGEMENT



WHAT IS PROJECT MANAGEMENT?

Project management (PM) is the process of leading the work of a team to achieve all project goals within the given constraints. This information is usually described in project documentation, created at the beginning of the development process. The primary constraints are scope, time, budget. The secondary challenge is to optimize the allocation of necessary inputs and apply them to meet pre-defined objectives.

Project management is then the use of specific knowledge, skills, tools, and techniques to deliver something of value to people. The development of software for an improved business process, the construction of a building, the relief effort after a natural disaster, the expansion of sales into a new geographic market—these are all examples of projects.

All projects are a temporary effort to create value through a unique product, service or result. All projects have a beginning and an end. They have a team, a budget, a schedule and a set of expectations the team needs to meet. Each project is unique and differs from routine operations—the ongoing activities of an organization—because projects reach a conclusion once the goal is achieved.

After having introduced the concept of project management, the trainer asks the participants

what their experience on PM is and if they can imagine an activity they carried out that could be conceived as a project (ex. organization of a dinner, planning of a family trip, etc.) How that activity could be planned and carried out in a more sustainable way (ex. taking green means of transport, ordering natural and organic food etc.)?

THE MAIN COMPONENTS OF PROJECT MANAGEMENT

Project management involves planning, controlling and completing the work of a team to achieve specific goals in a specified time.

Managing projects effectively and consistently is one of the most important functions for anyone. To be a great project manager, it is important to get these things right.

Let's start with the constraints of the work that needs to be completed for the project. This will help determine the people or team that should be involved. The constraints of a project include goals, time and budget.

Project Goals

The first thing you will need to establish are the goals of the project.

Ask yourself, "What are the desired outcomes I want to achieve from completing this project?" It can be very helpful to use the SMART Goals framework to set your goals.



SMART stands for Specific, Measurable, Achievable, Relevant, and Timely. The goals of your project will help you determine the quality standards of the completed work.

Project Timeline

Once you know the goals of the project, the next step is to determine the time needed to complete the work required to achieve the goal. In order for a goal to be realized, the project will need to be completed within a certain amount of time. If you're hosting a webinar to market a product or service, you better believe that the timeline for completing the webinar should not run beyond the date of the webinar. Furthermore, the larger the goal, the more work will need to be completed. If this is the case, it will be useful to identify milestones or micro-goals that need to be accomplished along the way.

Project Budget

There are very few things that cannot be completed with a small budget — as long as you don't care about the end result and you have an infinite amount of time. For example, if you need your website redesigned in a short amount of time on a shoestring budget, you will be unsatisfied with the end result. As we all know, when it comes to good, fast and cheap, you can only pick two.

Project Scope

Now that you have your goals, timeline and budget, you can complete the scope or specifications for the work. It should include a list of all of the tasks, deliverables, deadlines and resources required to hit your goal. Managing your scope and understanding what deliverables fall in and out of the allocated scope of the project is critical to ensuring that work gets completed on time and to the required specifications.

Now that you've identified your work constraints, it's time to assemble a team. At the risk of stating the obvious, your team will be the collection of individuals delivering the work in the project. Your team should consist of people with the right balance of diligence and capabilities to reach your project goals.

Team Skill Set

Building a team with the requisite skill set to deliver the work on time and on budget is incredibly important in project management. Since the scope of the project will define the deliverables, it can be used as a starting point to determine what the makeup of the team should be in terms of skill and capabilities.

Team Motivation

You should align a team members skillset with the relative importance of the tasks they will be assigned to for the project. For example, if your project requires SEO work on your blog, but this work is neither complex nor critical to the project, then you probably do not want to assign this work to your top SEO specialist. In other words, the work your team members are doing should align with their goals.

Team Chemistry

A team comprised of highly motivated and highly skilled members can still fail if they do not work well together. Two ways you can go about building a team with a lot of chemistry include previous experience working together and compatible personality types. The Myers-Briggs Type Indicator and DISC profile personality assessments are commonly used for this purpose.

Leadership

Finally, the needs to be capable leaders who are held accountable for ensuring the project is brought to completion. These individuals should be able to inspire the team, communicate effectively, delegate responsibilities and solve issues related to scope creep.

Now that you know the critical components of project management, it's time to start applying them to your idea generation strategy. Based on the ideas identified in the next session (ex. organization of a dinner, planning of a family trip, etc.), the trainer asks the participants to rethink the way those activities were carried out considering the components identified in this session: How that activity could be planned and carried out in a more efficient way (ex. was there a time and/or budget constraint; could the support of friends or relatives be helpful in carrying out those activities)?



ACTIVITY

Given the scenarios provided by the trainer, students should be able to analyze the context and:

- Identify the objectives, scope and timeline of the activity to be carried out
- · Breakdown the activity in smaller tasks
- · Identify stakeholders and project team

SCENARIO A – planning the end of the school year party

SCENARIO B - organizing your best friend birthday

SCENARIO C - planning your summer vacation SCENARIO D - organizing the fundraising for cleaning up the school area

Students are given 30 minutes to discuss together and sum up the results of the discussion by filling in the template they can find in the attachment.

[] Getting start with PM



HOW TO CREATE AND RUN SUSTAINABLE TEAM







ICE IDENTIFY STRENGTH

BREAKER: YOUR

Teacher will start the introduction to the module by asking participants to identify what are their strengths (e.g. organizational skills, communication skills, etc.), interests (e.g. financial, communication, environment etc.) and profile. Participants are then asked to work in small groups and try to identify how they could share responsibilities. The initial brainstorming will then inform the next sessions.

THE PROJECT TEAM

A project team is a group of people working together in collaboration or cooperation towards a common goal. For teams to be effective it is important that team members are understood as individuals in terms of their capabilities, their preferences, their cultural norms and expectations as well as the social dynamics between team members. Teams are increasingly international, with individuals who bring diverse skill-sets and perspectives, and can be located across countries and continents. National cultures are influential in shaping behaviours in project-based working. The project professional has an opportunity to improve outcomes by harnessing diversity and inclusion from the people available.

THE TEAM ROLES

Proper project team organization is one of the key constraints to project success. If the project has no productive and well-organized team, there's an increased probability that this project will be failed at the very beginning because initially the team is unable to do the project in the right manner. Without right organization of teamwork, people who form the team will fail with performing a number of specific roles and carrying out a variety of group/individual responsibilities. Hence, when you plan for a new project, first you must take care of the best project team organization through team building activities. Every team, regardless of the project type, size and nature. has three roles (defined as "conventional"). These roles are:

- Project manager: a team leader is a person who provides leadership and guidance to the team and takes responsibility for the results of teamwork.
- Member: a project team member is a person who is actually involved in doing assigned tasks. Team members directly access the project and actively evolve its processes.
- Contributor: a project team contributor is a person or an organization that participates in teamwork but is not actually involved in performing tasks and carrying out project team responsibilities.



Contributors help improve the project through giving valued suggestions, expert judgment and consultation. They aren't responsible for the project results. Often project team contributors have an interest or concern in the project, so they facilitate successful completion.

For the scope of the OUTSIDE methodology, we defined 4 basic roles each OUTSIDE green project should have:

- Project manager: the person responsible for coordinating the team, monitoring the implementation and the timeline, facilitating the workflow within the team, harmonize the decision-making process.
- Financial officer: the person in charge of leading the budget design, monitoring expenses and reporting them to the team
- Communication officer: the person in charge of the communication with internal and external stakeholders and responsible for conveying the environmental value of the project to the public.
- Marketing specialist: the member in charge of defining marketing tools, channels and strategies for promoting the project to the public.

Here's a small checklist of the key tasks for creating a project team organizational chart:

- Make a Project Team List. First you need to list all the people (and theirs names) who are supposed to be the participants of your project team. You can do this after you've finished interviews with candidates to the team.
- Allocate the basic roles. Now you must think about what individuals will take what roles. Use the results of your interviews to start with leaders, then list members and contributors.
- Identify additional roles. Analyse your project and define whether you need specific roles (ex. IT specialist)
- Assemble the Whole Team. Use your team list with the details on the roles assigned to your people to assemble the team. This means you need to formally constitute the team.

- Identify the Stakeholders. Your team if formed, now you need to identify the stakeholders or those people/organizations having a direct interest in or affected by your project. They are the sponsor and the customer. Note that although the stakeholders are not participants of the team, they're added to the project team organizational plan because they influence decisions of the team.
- Build the chart. Finally use all the data to create the chart and display relationships between the team and stakeholders on it. The relationships will show who is reporting to whom and what supervisory mechanism is used for leading teamwork.

After having introduced the concept of project team and roles, the trainer asks the teams to start brainstorming about sharing responsibilities. To what extent the project roles identify match with the strengths and interests introduced during the ice-breaking activity?

RUNNING A PROJECT TEAM "THE OPEN LEADERSHIP APPROACH"

Open leadership is a set of practices and skills people can use to mobilize their communities to solve shared problems and achieve shared goals. To put it another way, open leaders design and build projects that empower people to collaborate within inclusive communities. Open leaders are guided by open principles. They strive for:

- **Understanding**: They make the work accessible and clear.
- **Sharing**: They make the work easy to adapt, reproduce and spread.
- Participation & inclusion: They make the work inviting, relevant and safe for all.

To apply these principles, open leaders take these practices. They:

- **Design:** They make contextual, deliberate decisions about how and when to be open.
- Build: They create structures and systems that ensure clarity and process-based management.
- Empower: They model personal leadership skills that sustain them and their contributors.



As a result, open leaders and their communities, organizations and projects work towards these objectives.

They help their communities, organizations and projects:

- Improve the efficiency, quality and relevance of their work.
- Discover new, innovative solutions that make sense to them.
- Increase the discoverability, reach, lifespan and usefulness of their work.

Not every community, organization or project works towards all of those objectives, principles or actions at once. Instead, open leaders work with their contributors - the people who give their time, talent and expertise to a project - to focus on the elements that will help them achieve shared goals. For example, a local project might first work to improve efficiency, quality and relevance. Later, it might share more to increase the discoverability, reach, lifespan and usefulness of its work. Then another community could discover new, innovative solutions localized for them.

After having introduced the concept of open leadership, the trainer asks the teams to start brainstorming about the challenges the open leadership approach could bring to a project. Would the decision making-process be easier?

TEAM BUILDING FOR SUSTAINABILITY

Team building is a collective term for various types of activities used to enhance social relations and define roles within teams, often involving collaborative tasks.

Team building is one of the foundations of organizational development that can be applied to groups such as sports teams, school classes, projects teams. Team building includes:

- aligning around goals
- building effective working relationships
- reducing team members' role ambiguity
- finding solutions to team problems

There are many environmentally friendly team

building activities that can be organized and that can inspire the work of the team.

What kind of activities could your students organize to improve their team building?

ACTIVITY 1

Given the scenarios provided by the trainer, students should be able to analyze the context and define:

- · the team roles
- · the decision-making process.

SCENARIO A – planning the end of the school year party

SCENARIO B - organizing your best friend birthday

SCENARIO C - planning your summer vacation SCENARIO D - organizing the fundraising for cleaning up the school area.

Students are given 20 minutes to discuss together and sum up the results of the discussion by filling in the template on the attachment. The appointed communication officer takes notes and prepares a few slides for the project presentation that will happen at the end of the 4 sessions.

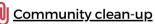


How to create and run sustainable teams

ACTIVITY 2

Learning activity (team building): half a day "Community clean-up".

By using the template below, teachers can propose this team building activity to the students.





HOW TO MANAGE A GREEN PROJECT



FINANCIAL PLANNING

A budget is a financial plan for a defined period, often one year. It may also include planned sales volumes and revenues, resource quantities, costs and expenses, assets. liabilities and cash flows. Companies, governments, families, and other organizations use it to express strategic plans of activities or events in measurable terms. A budget is the sum of finances allocated for a particular purpose and the summary of intended expenditures along with proposals for how to meet them. It may include a budget surplus, providing money for use at a future time, or a deficit in which expenses exceed income.

A project budget is the total projected costs needed to complete a project over a defined period. It's used to estimate what the costs of the project will be for every phase of the project. The project budget will include such things as labor costs, material procurement costs and operating costs. But it's not a static document. Your project budget will be reviewed and revived throughout the project. The key to creating a project budget is to make all the line items easy to track. If you can apply a straightforward process to project expenses, then you can monitor the spending on a project accurately and timely.

The first step in creating a budget is to identify expenses. You need to list everything that's required to bring a project completion.

This includes wages for labor, equipment, materials and more.

Examine your project plan thoroughly and identify expenses on your own to start. Then, your team members might be able to help you recognize certain expenses that you didn't recognize immediately, so be sure to ask them to look over your expense list when creating a budget. It's imperative that you list absolutely every expense. The more you identify, the less you'll be surprised by unforeseen expenditures later in the project.

Here below you can find a short checklist:

- 1. identify your expenses
- 2. estimate your costs
- 3. add in extras (reserve, contingency costs, etc.)

By using template below, the trainer asks the teams to identify expenses and estimate budget. What can you do if the estimated expenses exceed the available budget?

How to manage a green project



THE LIFECYCLE

PROJECT

Trainer will start the introduction to the module by asking participants to think about the project ideas identified in the learning scenario 1 (e.g. plan an holiday, organize a wedding, organize the end of the year party. etc.) and think of a budget and a timeline. You and your team have been assigned the task, how can you manage it?

Regardless of the methodology or terminology used, the same basic project management processes or stages of development will be used. Major process groups generally include:

- Initiation: The initiating processes determine the nature and scope of the project. If this stage is not performed well, it is unlikely that the project will be successful in meeting the needs. The key project controls needed here are an understanding of the environment and making sure that all necessary controls are incorporated into the project. Any deficiencies should be reported and a recommendation should be made to fix them.
- Planning: After the initiation stage, the project is planned to an appropriate level of detail. The main purpose is to plan time, cost, and resources adequately to estimate the work needed and to effectively manage risk during project execution. As with the Initiation process group, a failure to adequately plan greatly reduces the of project's chances successfully accomplishing its goals.
- Production or execution: The execution/implementation phase ensures that the project management plan's deliverables are executed accordingly. This phase involves proper allocation, coordination and management of human resources and any other resources such as material and budgets. The output of this phase is the project deliverables.
- · Monitoring and controlling: Monitoring and controlling consist of those processes performed to observe project execution so that potential problems can be identified in a timely manner and corrective action can be taken, when necessary, to control the execution of the project.

The key benefit is that project performance is observed and measured regularly to identify variances from the project management plan.

 Closing: Closing includes the formal acceptance of the project and the ending thereof. Administrative activities include the archiving of the files and documenting lessons learned.

THE **PROJECT** INITIAL TIMELINE: GANTT CHART

A Gantt chart is a type of bar chart that illustrates a project schedule. This chart lists the tasks to be performed on the vertical axis, and time intervals on the horizontal axis. The width of the horizontal bars in the graph shows the duration of each activity. Gantt charts illustrate the start and finish dates of the terminal elements and summary elements of a project. Terminal elements and summary elements constitute the work breakdown structure of the project.

After having introduced the GANTT chart and its aims, the trainer asks the teams to start drafting an initial timeline of their project.

The trainer provides the OUTSIDE GANTT chart template to facilitate the work.



How to manage a green project

PROJECT MONITORING AND RISK MANAGEMENT

Monitoring is a continuous assessment that aims at providing all stakeholders with early detailed information on the progress or delay of the ongoing assessed activities. It is an oversight of the activity's implementation stage. Its purpose is to determine if the outputs, deliveries and schedules planned have been reached so that action can be taken to correct the deficiencies as quickly as possible. Good planning, combined with effective monitoring and evaluation, can play a major role in enhancing the effectiveness of development programs and projects. Good planning helps focus on the results that matter, while monitoring and evaluation help us learn from past successes and challenges and inform decision making so that current and future initiatives are better able to improve people's lives and expand their choices.



Monitoring and controlling includes:

- Measuring the ongoing project activities ('where we are'):
- Monitoring the project variables (cost, effort, scope, etc.) against the project management plan and the project performance baseline (where we should be);
- Identifying corrective actions to address issues and risks properly (How can we get on track again);
- Influencing the factors that could circumvent integrated change control so only approved changes are implemented.

Risk management is the identification, evaluation, and prioritization of risks (defined in ISO 31000 as the effect of uncertainty on objectives) followed by coordinated and economical application of resources to minimize, monitor, and control the probability or impact of unfortunate events or to maximize the realization of opportunities.

The risk management plan should propose applicable and effective security controls for managing the risks. For example, an observed high risk of computer viruses could be mitigated by acquiring and implementing antivirus software. A good risk management plan should contain a schedule for control implementation and responsible persons for those actions. In order to design an effective risk management plan, we propose the following steps:

- Identify the threats
- Assess the vulnerability of critical assets to specific threats
- Determine the risk (i.e. the expected likelihood and consequences of specific types of attacks on specific assets)
- · Identify ways to reduce those risks
- Prioritize risk reduction measures.

By using template below, the trainer asks the teams to identify the potential risks of their project and plan counteractions. What can you do if an unexpected risk arises?

How to manage a green project

THE PROJECT STAKEHOLDERS: INTERNAL VS EXTERNAL

The term project stakeholder refers to, "an individual, group, or organization, who may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project." Project stakeholders are entities that have an interest in a given project.

These stakeholders may be inside or outside an organization which:

- sponsor a project, or
- have an interest or a gain upon a successful completion of a project;
- may have a positive or negative influence in the project completion.

Stakeholder management is then a critical component to the successful delivery of any project, programme or activity. It is a four-step process of:

- 1. identifying stakeholders
- 2. determining their influence
- 3. communication management plan
- 4.influencing stakeholders through engagement.

To facilitate the process, a project team under the guidance of the communication responsible can elaborate a stakeholder register.

Particular attention should be given to external stakeholders those who do not have a direct tie to the project. They are not employees and do not have any direct financial interest in the profit or loss of the project. Instead, they have an interest in how the project affects the community or a part of the community. External stakeholders include government entities such as city councils, local schools, other businesses and residents in the area where the team implements its project.

Who are the external stakeholders of a company?

By using this <u>template</u>, the trainer asks the teams to identify the main internal and external stakeholders of their project. How could the external stakeholders have a negative impact on your project?



This session is complementary to the next one where the teacher will focus on the communication strategy and on stakeholders' engagement.

ACTIVITY 1

Given the template below, the trainer asks the teams to identify:

- the project timeline
- the potential risks
- expenses and estimate budget
- the main internal and external stakeholders of their project

SCENARIO A – planning the end of the school year party

SCENARIO B - organizing your best friend birthday

SCENARIO C - planning your summer vacation SCENARIO D - organizing the fundraising for cleaning up the school area

Students are given 45 minutes to discuss together and sum up the results of the discussion by filling in the template on the attachment. The appointed communication officer takes notes and prepares a few slides for the project presentation that will happen at the end of the 4 sessions.



How to manage a green project

ACTIVITY 2

By following the template below, students are invited to develop an artistic project on plastic reduction.

<u>Agenda 2030 - a Circular Economy for a Sustainable World»</u>



HOW TO BOOST INTERNAL AND EXTERNAL COMMUNICATION SKILLS OF THE TEAM







ICEBREAKER: Stakeholders

THE

In the previous sessions the students' teams have identified the stakeholders of their project. Think of the shool context, who are the external stakeholders (e.g. parents)? How do they affect the classes?

THE COMMUNICATION PLAN

A communication plan is a road map for getting a message across to an audience, pinpointing who you need to get information to as well as when and how you intend to communicate it. It's an essential tool across the business world, whether you're working in marketing, human resources, public relations, or corporate affairs. Taking the time to specify your goals, audiences, and communication strategies will make your plan as strong and effective as possible. Clear communication in project management isn't just about where you should be communicating, it's also about which team members should be receiving which types of messages.

Internal communication is as important as the one addressed to the external stakeholders and the audience. Sharing a communication plan can give your team clarity about which tools to use when and who to contact with each of those tools.

Without a communication plan, you might have one team member trying to ask questions about work in a tool that another team member rarely checks. Rather than being able to clearly communicate and move forward with work, each team member would end up frustrated, confused, and disconnected from the work that matters.

A communication plan can be easily created in four steps:

- Define your target stakeholders (internal and external)
- Define the objectives and your overall communication strategy
- Establish your communication methods and channels for both internal and external communication
- Create a timeline or a calendar for your plan

By using template below, the trainer asks the teams to design the communication plan for their project. Are all the components of the plan necessary? If not, why?

Communication skills



COMMUNICATING SUSTAINABILITY

THE

Today's stakeholders, such as governments, consumers or buyers, expect companies to go well beyond compliance and to articulate how they're addressing major global challenges, from climate change to modern slavery. It's no longer enough to minimise your impacts. You must show how you contribute to a better future for people and the environment.

As sustainability has become a mainstream business concern, more and more companies are communicating their stories. Leading businesses are open about the challenges they face, and explain the important work they do to address complex social and environmental issues. By communicating their efforts authentically, they demonstrate credibility, and earn greater trust and recognition among stakeholders.

Communicating your sustainability programme can unlock huge benefits, whether you're a large multinational or a small local business. Well-crafted communications can be a powerful tool, from engaging employees and helping to drive change internally, to sparking stakeholders' interest in the big milestones you're meeting on your sustainability journey. It can also help you increase competitive advantage as your position on social and environmental issues differentiates you from your peers.

Communicating your sustainability efforts will also help you address growing challenges, such as new reporting regulations, declining consumer trust in brands and closer scrutiny from investors.

<u>Communicating Sustainability - how to produce effective public campaigns.</u>

By using this template, the trainer asks the teams to integrate the communication plan with the sustainability components. What is the message you want to deliver? What is the sustainability added value of your project?

ACTIVITY 1

Given the template below, the trainer asks the team to:

- design the communication plan for their project
- integrate it with the sustainability components

SCENARIO A – planning the end of the school year party

SCENARIO B - organizing your best friend birthday

SCENARIO C - planning your summer vacation SCENARIO D - organizing the fundraising for cleaning up the school area

Students are given 30 minutes to discuss together and sum up the results of the discussion by filling in the template in the attachment. The appointed communication officer takes notes and prepares a few slides for the project presentation that will happen at the end of the 4 sessions.



How to boost internal and external communication skills of the team

ACTIVITY 2

By following the template below, students are invited to develop a communication campaign on the Mediterranean diet.



The Mediterranean diet



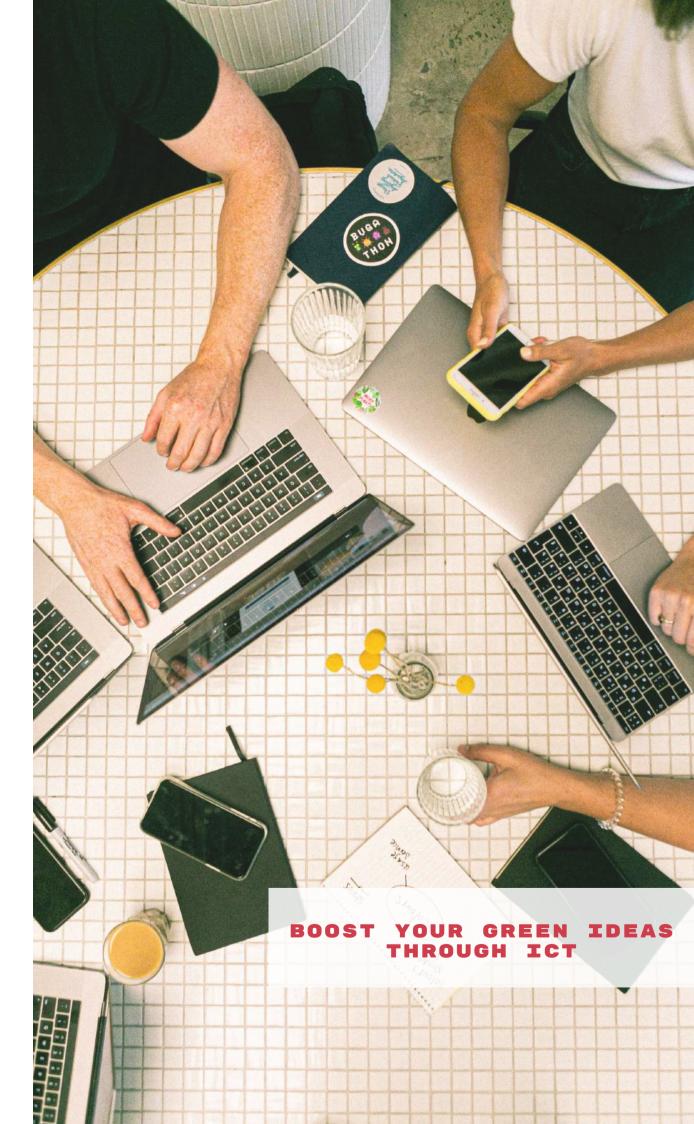


- What is project management?
- Main components of project management
- What is agile project management?
- The Agile PM approach
- · Time management (GANTT chart)
- Task management (Work Breakdown Structure)
- Collaboration and documentation
- Risk Management
- Earned value management
- OUTSIDE module 7 template 7a.docx
- The project team
- The team roles
- Running a project team "The open leadership approach"
- Team building for sustainability
- 4 green team building activities for an happier life in the office
- OUTSIDE module 7 template 7b part A.docx
- OUTSIDE_ module 7 template 7b part B.docx
- The project life cycle
- · Financial planning the project budget
- Monitoring
- Risk management
- · The project stakeholders: internal vs external
- Stakeholder register
- Who are the External Stakeholders of a Company?



- OUTSIDE module 7 template 7c part A .docx
- OUTSIDE module 7 template 7c part B.docx
- The communication plan
- Communicating the sustainability
- Communicating Sustainability how to produce effective public campaigns
- OUTSIDE_module 7 template 7d.docx
- OUTSIDE_ module 7 template 7d part B.docx





INTRODUCTION

In the current time, Information and Communications Technology is an integral part of human lives. We depend upon ICT for almost everything.

The worldwide upsurge in the use of Information and Communications Technology enabled us to make the exchange of information faster and easier; reduced our need to move people, products, information physically, which also allowed us to cut the road traffic. Interestingly, whereas ICT is a tool that can help to invent and implement environmentally friendly business ideas, but it can be useful as a green idea itself.

Therefore, there is a need to spread awareness - how ICT can be utilised as a green idea and how it can help further to boost new green ideas.

LEARNING OBJECTIVES

- To understand the role of ICT in the green growth.
- To understand how ICT can be used as a green idea itself.
- To understand how ICT can be used to develop green ideas.
- To understand how ICT can be used to implement green ideas.

LEARNING OUTCOMES

- Teachers will be able to understand the benefits of ICTs.
- Teachers will be able to understand different categories of ICT tools, how to select and apply them.
- Teachers will be able to make strategies on how to use ICT skills to achieve the goals.
- Teachers will be able to use wide range of useful tools and resources for integrating ICT.
- Teachers will be able to use different ICT tools in the context of green idea.



Teachers will be able to apply digital promotion strategies with the students.

TRAINING SESSIONS

This module consists of 3 sessions of interrelated topics:

- Session 1: ICT itself as a green idea
- Session 2: Utilizing the digital skills and social media to boost business ideas
- Session 3: Making Social Media strategy to boost green business ideas
 - VIDEO LESSON MODULE 8

ict itself as a green idea



INTRODUCTION

The very first part of the session would be an invitation to see how the group feels at this moment (5'). We start the session with a check-in, a sort of 'temperature meter' (on a scale from 1-100):

- 1. Evaluate your emotions
- 2. Evaluate your physical body
- 3. Evaluate your thoughts

We invite to do the check-in with a flipchart, we advice to prepare in advance: you can paint a scaling graph that notes one side as 0% and another as 100% with each sentence written in the graph.

Before the activity, each participant would be given a single color (sticker or marker) to mark their answer. After the activity, they would be given a different colour (sticker or marker) to mark their answer. It would help to compare the results and see if there are any changes in the group before and after the workshop. Facilitator can briefly present the results and move on to the following parts of the session.

Training session will start with an introduction to the concept of the session followed by a small group brainstorming about ICT and ICT applications. Later, a big group discussion will be facilitated between the participants toward ICT knowledge and usage.

STEP 1: Introduction Information and communication technologies are becoming an integral part of our lives. ICT plays a vital role in information and communication technologies. However, it can be used as part of solutions to decrease the environmental footmark of other activities. There are multiple publications that explain the potential of using ICT as part of the solution for a better sustainable and environmentally friendly future. Different organisations named as the World Wildlife Fund call for a swing of attention "from Green IT to Greening with IT", and the Global e-Sustainability Initiative claim that the potential of greening with ICT is certain a solution for future environment problems.

So, how can we all, as a society, invest in this potential? ICT is a general-purpose technology, it is something that can influence everything around us, also can influence every action we take. ICT plays a crucial and vital role in our everyday lives. In the present times, we entirely rely on ICT for the information exchange. It is embedded in our daily life so much that we even forget to realise how ICT has become an integral part of life.

There is very much essentiality to spread an awareness about ICT and how this ICT itself can be used as a green idea. Therefore, the focus of this activity is to propagate ICT as a green idea in an academic school environment.

STEP 2: Small groups discussion

After the introduction, participants will be asked to form small groups of 3-4 people (depending on the size of the group) and start a discussion regarding the workshop of today and ICT skills they are using already.



Possible questions for the discussion (if helpful, the questions could be printed out or written on the flipchart):

- What do ICT skills mean for me in general? What do I know about that already?
- What I am already using in my personal and/or professional work from the ICT skills?
- What do I want to learn today?

STEP 3: Big group discussion

We ask each group to share what was discussed in the big circle. Meanwhile, the facilitator can mark important points on the flipchart to have a visual representation of the discussion.

To sum up the small groups discussion, facilitator can asks questions as:

- What was the most important part from this small group discussion?
- What did you learn from this small group discussion?
- What do you want to know more about?
- Is there anything else you want to mention that was not mentioned?

WORLD CAFÉ ON ICT Tools

In this activity, the world café method will be used. Everyone will be divided into the different 4 teams. Teams can consist of 4-5 participants in each team. However, the numbers of teams and the number of participants in the teams can vary and depend on the total number of participants.

The four different topics that can be given to the four different teams are:

- 1. What ICT tools are already available in your school? What kind of help schools provide toward the use of those ICT tools?
- 2. Which ICT tools are lacking in your school environment? What kind of help schools should provide you to gain access to such tools or gain necessary skills?
- 3. What are the benefits of using digital tools/skills in the school environment?
- 4. What are the disadvantages or risks related to the use of digital skills and social media in the school environment?

Note to participants to talk about digital tools/ skills to create the content and also social media via you would spread created content.

STEP 1: Introduction: The participants will be introduced to the world café method. What is it and how does it work?

World Café method explained in the visual way.

STEP 2: Team Creation: The participants will be divided into different teams either by the same nationality or mixed-up nationalities by using likewise methods such as counting (1,2,3,4...). After the team creation, participants will be asked to get settle on their assigned tables. After settling on the tables, team will decide one person from the team, as a team leader.

STEP 3: Activity: On each table, there will be a question or topic. The teams will get 10 minutes to brainstorm and discuss regarding the topic with their team-mates. Team leader will document the ideas and discussion of the participants on sticky notes or general paper. When 10 minutes will be passed, the team members will be switching the tables in a clockwise direction. However, elected team leaders will not move with the participants but will stay on the first assigned table. Likewise, in the previous step, next 10 minutes, team members will spend on discussing another question or topic placed on the table they settled on. In such a manner, 4 teams will attend all 4 tables in clockwise direction spending 10 minutes on each table and will discuss the topic and share their views while team leaders will keep documenting them.

STEP 4: Sharing the ideas: Lastly, team leaders will come on the stage and will share the documented views one by one.

STEP 5: Discussion: This part will be an open discussion among all the participants related to the activity. They should be encouraged to speak about different views by facilitating different questions such as:

- What new concepts they have found interesting in this discussion?
- If there is something, they didn't share during the group discussion but they would like to share in the group?



UTILIZING THE DIGITAL SKILLS AND SOCIAL MEDIA TO BOOST BUSINESS IDEAS







ACTIVITY: PROMOTE YOUR BUSINESS IDEA

INTRODUCTION AND ICEBREAKING (Teacher) In a gradual way introducing ICT tools, in this session participants will be introduced with different ICT tools through brainstorming and different size group discussions. During activity, participants will gain more insights regarding how such ICT tools are utilised for different purposes in school environments.

STARTER (Teacher)

This step will entail an open discussion. Teacher will ask the participants to come out with names of the social media platforms that participants are familiar with and use on a daily basis. As participants will state any name of any social media platform, the trainer will note down the name on the flipchart. When participants will start to dry out with the name of the social media platforms, then the trainer will unfold another flipchart sheet already filled with a list of different social media tools and will briefly explain the nature of those social media tools. This activity is added to extend the horizons of the participants and make them aware about the availability of helpful tools. Platforms can also be presented in different way- why not to present it in a digital way?

After this step, on the wall, the teacher will display two open flipcharts filled with a list of

of different social media and digital tools separately for participants. These flip charts will be used in the next main activity. Implementation of the starter is vital as this step will help the trainer to take the participants on the journey of the main activity gradually.

MAIN ACTIVITY

After the starter, there will be task performance. The aim of this task is to induce practical competences among participants. This activity will be a step by step process, which includes following steps:

Step 1: In this step, the teacher will give some time to the participants to think about a business idea that they would like to work with. The business idea does not need to be serious or very specific. Trainer shall encourage the imagination among participants and provide the freedom of choosing any idea.

Step 2: As soon as participants have a business idea they would like to work on, subsequently the trainer will instruct the participants to check the both open flipcharts filled with the names of digital tools and social media tools. The teacher will encourage the participants to think and choose any one social media tool and one favourable digital tool participant would like to work with. Teacher should keep in mind that the added tools on the social



media and digital tools list shall be accessible and users friendly at the time of the workshop delivery. However, participants will also be allowed and encouraged to choose any preferable social media tools and digital media tools even if they were not mentioned in the list.

Step 3: This step will be a practical exercise. In this step, the teacher will ask the participants to use the favourable digital and social media tool to promote the business idea. The main emphasis of this activity will be utilising the social media networks for business promotion. Participants will use the digital tool to make strategy for the business idea, from the same token, participants will be using a selected social media tool later to promote that business idea.

For example: first participants will be creating a poster or making a video or anything else by using the digital tool. Later, participants will use the social media platform to promote that business idea. Overall, participants shall be encouraged to create a convincing promotion of the business idea using the chosen social media and digital media tool. Lastly, this step will be marked as completed when participants will actually promote the onsite created business idea on the social media platform.

Step 4: In this step, participants will be asked to present the work they did in the last step. Each participant will be given 2 minutes to present their idea to the audience. In this step, participants will briefly introduce the business idea they worked on, digital tools they have used and the social media platform they utilized to promote this idea. While the work of this activity will enhance the creativity toward business ideas, social media tools and digital tools usage, this activity will also boost the confidence of the participants and help other participants to understand the creativity in business ideas and ICT tools usage.

Step 5: After the presentation, the facilitator will encourage the participants to share openly which tool they found completely new or anything else that they consider a valuable addition in their knowledge.

DEBRIEFING

To wrap up the session, the trainer will facilitate a debriefing moment where participants are encouraged to express their questions, doubts, ideas and feelings toward the topics discussed.

Facilitator can use the following questions for debriefing:

- 1. How did you feel when you were asked to have a business plan?
- 2. How was the process for you to make a choice for digital and social media tools? Was it easy or hard?
- 3. What did you find new in this experience?
- 4. How can you apply this knowledge in real life?



MAKING SOCIAL MEDIA STRATEGY TO BOOST GREEN BUSINESS IDEAS



DEVELOPING A SOCIAL MEDIA STRATEGY

STARTER (Teacher)

After participants will get settled on their seats, before the commencement of any other activity, the trainer will ask participants to share one by one with what mood they are in today. This step is to increase the ease and friendliness in the environment.

Trainer also presents what is going to happen today: we are going to create a social media strategy for each participant or in a small group if it is more relevant for the group.

This will help to stay consistent and boost your green ideas in the long term. How to start? We offer the following steps:

- 1. Specify your target audience
- 2. Set your objectives (via SMART method)
- 3. Pick communication channels (social media platforms)
- 4. Decide what content you want to communicate for your target audiences
- 5. Make tasks for your team and content calendar

Participants will work on making their social media strategy. Each of them will have 60 minutes to work on each step. Here you can find more detailed plan how to work on it:

1. Specify your target audience (age, gender, occupation, income, hobbies and interests, etc.)

2. Set your objectives (via SMART method)

Smart goals will allow you to create wellstructured campaigns. How to distinguish a proper objective, as opposed to a vague one? Here is the example of vague and smart objective:

- VAGUE GOAL: I will increase my number of fans on social media platforms.
- SMART GOAL: By the end of the year, I will increase fans on Facebook page by 10%.

To make sure that the goals and objectives are clear and reachable, each one should be:

- Specific (simple, sensible, significant).
- Measurable (meaningful, motivating).
- Achievable (agreed, attainable).
- Relevant (reasonable, realistic and resourced, results-based).
- Time bound (time-based, time limited, time/cost limited, timely, time-sensitive). SMART goals are established using a specific set of criteria that ensures your objectives are attainable within a certain time frame. As you can see, the acronym, SMART is a play on words. Facilitator can prepare flipchart using graphic facilitation skills on how to use the SMART method while writing the acronym with the meaning behind. There are also helpful questions that can increase understanding of the method.
- **3. Pick communication channels** (social media platforms). Here participants can be reminded about previous work where we already discussed different social media platforms.



Here they have a chance to choose at least one and work on the strategy of this exact platform. If they see that it is relevant, they can also choose more platforms. The aim is to choose the social networks that are used by your target audience the most and suit your brand's image at the same time.

4. Decide what content you want to communicate for your target audiences. After knowing your target audience, goals and the channel participant want to use, now it is the time to choose the content and lines to be put for the wider world.

Decide:

- What you want to communicate.
- How often you want to communicate

5. Make tasks for your team and content calendar

- Make a calendar about your communication
- Dedicate tasks for the team.

DEBRIEFING

Each participant or group of participants (check what is more relevant for your group) is going to work on the strategy talking about each 5 points. After the process is done, there will be a brief presentation by each participant or group of what was achieved during this session. To wrap up the session, the trainer will facilitate a debriefing moment where participants are encouraged to express their questions, doubts, ideas and feelings toward the topics discussed.

Today we encourage to use the method for the reflection called "Rose". Facilitator invites to openly speak (not going around in a circle, sporadically) about what was a highlight (rose's top) and what was challenging (rose's thorn) and what new ideas came (rose's bottom).

Draw such a rose on the poster to visualise what is wanted from participants.

- Top: A highlight, success, small win, or something positive that happened. What did you like about the process?
- Middle (Thorn): what was challenging or disliked?
- Bottom (Bud): new ideas that have bloomed or something to look forward to.

ADDITIONAL INFORMATION SOCIAL MEDIA

ON

SOCIAL MEDIA MARKETING MAIN TIPS:

1.Start with a plan

Set social media goals and objectives. Create goals that follow the SMART framework. They should be specific, measurable, attainable, relevant, and timely.

2. Identify the Right Social Media Channel

Facebook is best if you want to increase brand awareness or generate leads. On the other hand, if you want to expand your network of influencers and professionals, then Twitter and LinkedIn may be the top options. While TikTok and Instagram are prime choices to appeal to younger demographics.

3. Create a social media calendar

4. Make your social media accounts visually pleasing/stand out

Create a symbol, a character that could be identifiable to the audience. Choose a color palette, make your accounts look put together!

CONTENT-WISE:

5. Create Your Brand's Story

The way you portray your brand has a huge impact on how people feel about it. Prominent businesses have resorted to effective storytelling for the success of their brand marketing.

Stories always help to develop an emotional connection between your brand and the target audience.

Apart from what and how you say it, the medium through which your brand communicates its story is also important. Social media is a highly effective platform to share your brand's stories and to connect with people.

6. Connect Content with Current Events

7. Use Stories

8. Make the Most of Live Videos

Live videos are increasingly becoming popular among brands that wish to engage their audiences. n fact, a Livestream survey found that 80% of the audiences prefer watching live videos from a brand to reading their blogs



9. Share Photo Posts and use Social-Friendly Images

Tools like Canva, Cello, and Venngage can be used to create jaw-dropping graphics. Based on your promoting channel and post theme, they offer hundreds of templates to get you started. So, make your own infographic, image, or template and see how social-friendly images can help grab more attention to your brand!

10. Use Animated GIFs

- 11. Use Emojis to make your posts more fun
- 12. Write Captivating Headlines for Social Media
- 13. Do Surveys and Polls
- 14. Do AMAs (Ask Me Anything)
- 15. Post What's Good for The Society (E.g. Charity and Help)

16. Mix up your formats

Make sure to switch up your social post formats from time to time. If you usually post GIFs, try a JPG. If you normally post still images, try a video. And take advantage of all the formats within each social network, like Stories, or Reels, or Live video.

17.Use Relevant Hashtag

Hashtags are a great way to improve brand visibility. The hashtags should also be relevant to your targeted audience. The more specific the hashtag is, the more relevant your audience will be. This will lead to better visibility and higher engagement rates. Always try to use variations of hashtags by including a generic one with a unique and specific hashtag.

18. Increase website traffic

Social media posts and ads are key ways to drive traffic to your website. Sharing great content from your blog or website to your social channels is a great way to get readers as soon as you publish a new post.

19. Promote content

Promoting your content on social channels is a great way to get your smart, well-researched content in front of new people, proving your expertise and growing your audience.

20. Targeted advertising

Social ads are an inexpensive way to promote your business and distribute content. They also offer powerful targeting options so you can reach the right audience.

21. Focus on quality over quantity

22. Get Your Timing Right

The secret behind a successful social media post is to share the right post at the right time.

This is where SocialPilot comes to your rescue. It gives you detailed insights into multiple social media activities and helps you discover the best time to post. You can then schedule your posts on various social media platforms right from the SocialPilot dashboard. Better yet, the tool helps you understand how your posts are performing so you can make further improvements.

BUILDING RELATIONSHIPS:

23.Initiate Conversation with Your Social Media Followers

24.Respond to Questions and Customer Issues

25.Regularly Follow Relevant and Active People in Your Industry

- **26. Cross Promote Your Social Profiles**
- 27. Use Social Media Management Tools
- 28. Track and refine your performance

Monitor everything constantly. Watch your onplatform analytics to see what types of content users are engaging with, and your social trends over time.

- 29. Be Active on Social Media
- 30. Make Social Media An Essential Part Of Your Business

31. Always Experiment And Evolve

The last and most important thing for your brand to remember is that it can't afford to remain static. You have to constantly find ways to innovate, whether that's through the content that you're creating or whether that's by becoming an early adopter of promising new technologies and social media platforms.

<u>Tips for using the main five social media</u> platforms





- · World Café method explained in the visual way
- Collection of videos about non-formal education and how to lead it "YOUTRAIN videoproject"
- The World Café Method
- MindTools
- **SMART Goals Complete Guide for Coaches**
- Popular Social Media Channels for your Business (Explained)
- 9 Ideal Ways to Boost Your Social Media Marketing Efforts
- 35 Effective Ideas to Increase Your Social Media Engagement
- How to Use Social Media for Small Business: 12 Simple Tips
- The Easy Guide to Social Media for Small Business
- How to use social media for business
- Social media for businesses
- Social Media Marketing 101: The Ultimate Beginner's Guide





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