# Deliverable 2.1: Train the trainer manual

## *BioBeo*
*Innovative Education for the BioEconomy*

# Project factsheet

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# Deliverable factsheet

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## Abbreviations

| | |
|---|---|
| UDL | Universal Design for Learning |
| STEM | Science, Technology, Engineering and Mathematics |
| STEAM | STEM plus Arts |
| F | Facilitator |
| P | Participant |
| PBL | Problem-based learning |

# Executive Summary

The overall aim of BioBeo is to develop and deploy an education programme that will enhance understanding and engagement across society regarding 'circularity' and the bioeconomy, using five bioeconomy themes – interconnectedness, outdoor learning, forestry, life below water, and the food loop. A sustainable network of interconnected European educators and stakeholders committed to promoting the bioeconomy concept through all channels will co-create and co-deliver the education programme. BioBeo will provide the means for better coordination between bio-science and education in schools by developing the Circular Economy Science-Society message. It will have a particular focus on circular lifestyle, circular behaviours, and a governance framework on society-wide engagement in bioeconomy policy. BioBeo shall take steps to address social issues such as gender bias, disadvantaged youth groups, migrants and members of society with additional needs.

For the project to have a lasting impact, there is a need to change governance approaches and to fully engage the students, their parents and families in the implementation. This manual contains the full train-the-trainer and stakeholder training programme for empowerment and the engagement of all stakeholders in governance and implementation. The training focuses on the theory and practice of community and parental engagement as well as child participation. It includes self-directed learning elements that prepare trainers for delivering trainings, detailed descriptions of training activities with tips and practical ideas for organising and implementing the trainings. It is primarily designed to support peer-training and provides various materials for further reading and recommends further training options.

# Table of Contents

Deliverable 2.1: Train the Trainer Manual – Engaging stakeholders, especially parents and students. at various governance levels

BioBeo

# Introduction

This manual contains the full train-the-trainer and stakeholder training programme developed by the BioBeo consortium for empowerment of the engagement of parents, students and other stakeholders in governance and implementation. The manual has 2 main parts: a part with self-directed learning elements that prepare trainers for delivering trainings in the fields of necessary background knowledge and methods of adult education/training, and a training activities handbook that contains the training they can deliver as trainers. It also offers practical ideas for organising and implementing the trainings in your own context. The manual is primarily designed to support peer-training, especially for those who already participated in a BioBeo training to deliver the same programme in their own school, upscaling and mainstreaming the training as well as the approach this programme pursues.

The training focuses on the theory and practice of community and parental engagement as well as child participation to enhance understanding and engagement across society regarding lifestyle, circularity and bioeconomy and provides practical, hands-on tools that can be used in various settings.

The course contains engaging activities so that participants feel motivated and supported to try out the methodology in a collaborative way that promotes reflective practice. Several online trainings and online materials are included that can be used as a continuation or extension of the current training.

**The BioBeo project**

The project's overall aim is to develop and deploy an education programme to enhance understanding and engagement across society regarding lifestyle, circularity and bioeconomy, using 5 bioeconomy themes: interconnectedness, outdoor learning, forestry, life below water and the food loop. A network committed to promoting the bioeconomy concept will co-create and co-deliver the programme. BioBeo will provide for better coordination between bio-science and education in schools by developing the Circular Economy Science-Society message with a particular focus on circular lifestyle/behaviours, and a governance framework on society-wide engagement in bioeconomy policy. The project will address social issues such as gender bias, disadvantaged youth groups, migrants and members of society with additional needs. It will

1. increase awareness of environmental, social and economic benefits of sustainable and circular bioeconomy among young people at pre-school, primary and secondary school levels,
2. identify institutional and cultural barriers,
3. develop innovative approaches and digital toolkits for educational and information materials,
4. pilot the BioBeo education programme reaching 35 schools, 1,000 university students, 1,800 parents/guardians and 100 teachers across Ireland, Belgium, the Netherlands, and Germany,
5. demonstrate a measured increase in engagement of young people and their intention to pursue education and careers in life science, technology and bioeconomy,
6. enhance governance of bioeconomy-related processes within society by engaging European citizens from young to old in active policy-making, and
7. coordinate communication and dissemination to optimise the reach and visibility to students, teachers, policymakers and parents. The project will contribute to the transition to a sustainable EU circular bioeconomy by enhancing society-wide awareness and inspiring Europe's youth to pursue STEM-related careers.

BioBeo

# Practical arrangement

## Training curricula

Depending on the allocated time for your training – a minimum of 90 minutes up to 6x3 hours – you will need to decide how much of the materials presented in this manual you aim to use.

If you only have 90 minutes, we suggest using a PowerPoint presentation using the material in the handbook's theoretical part to deliver the most important points of the background efficiently, in a maximum of 30 minutes, and to focus on engaging activities, so that participants feel motivated to be involved more. If your time is very limited it is even more important to focus on the particular needs of your participants and prepare a needs analysis beforehand (you can read more about this below).

If you have more time, but not the full 6x3 hours of the whole course, we suggest either focusing on one or two modules that the needs analysis shows to be especially important, or making a personal selection of the activities based on your training style.

Beside the face-to-face training activities, the manual contains a selection of readings and online courses so that participants you have managed to draw in can keep learning on their own, at their own pace.

## Number of participants

The face-to-face part of this training is designed for a minimum of 12 and a maximum of 24 participants. Much less or much more participants will make your work harder and the overall training less efficient. It is better to have an even number of participants so that they can form pairs. If you have an odd number you have to decide if you yourself join the pair activities or ask three people to work together, but the latter means giving them a bit more time.

## Modules

0. Introduction, getting to know each other
1. Parental and community engagement, child participation
2. Communication in diverse groups
3. The whole school approach and open schooling
4. Universal design and student-centred teaching methods
5. Shared leadership at different governance levels
6. Advocacy

## Make Your Training Successful

It is important, when planning your training session, that you are aware of the different methods and approaches which may help your participants learn. Aim to use a range of training methods and show these in your planning. Be aware that people in your group, regardless of them being professionals, will have different backgrounds and levels of understanding. Not everyone learns in the same way, so using a range of teaching methods – just like in the classroom - will help you reach the diverse needs of your learners.

Deliverable 2.1: Train the Trainer Manual – Engaging stakeholders, especially parents and students. at various governance levels

BioBeo

DELIVERY METHODS

Try to do what you preach and implement learner-centred methods during the training. The full programme contains such activities. However, if you do not fully follow the programme, include activities that build on participants' own experiences and that include active learning. Remember how you felt as a learner if you have already done the training, and leave out or replace activities that you did not like as a trainee. Your training will only be authentic if you follow your instincts. For example, if you hate participating in icebreakers, replace them with something that serves the same purpose – the bringing of participants into the course –, but you feel good about.

The training programme suggests a variety of learning arrangements from individual reflection to pair and small group work to plenary discussions. In any case, make sure that all participants can express themselves. All experiences should be considered equally valuable, you are working with experienced professionals.

LANGUAGE

Ideally, you will deliver this training in a language that all participants understand and speak fluently. However, if you have participants who have difficulties with understanding and/or speaking the language of instruction (e.g. parents with migrant background), you might have to use more visual aids (e.g. short presentations with key words, activities where participants are required to draw a poster), body language (e.g. activities where participants act out a situation without words) and pair/group work, so that those who speak the language of instruction fluently can support their peers in need.

DELIVERY METHODS

Some of your participants will learn best when they are given visual aids to support the training content. Printed handouts are really useful for some learners, especially when these handouts can be taken home after the session and used as reminders or to supplement extended learning. Handouts can also be shared in a cloud folder to save paper.

Avoid lecturing and theoretical presentations. In case you feel some theoretical introduction is necessary, leave it for a session after the first one, and implement flipped classroom methods making them read before they come to the session. Although you are training adults, education research shows that the average attention span is 7 minutes when somebody has to listen to a lecture. It grows significantly if the participant is actively involved and people tend to remember most of what they themselves have said during a training. Therefore, this training relies much more on pair and group exercises than presentations.

## Practical Advice for Planning and Implementation

The following practical advice serves to support you in organising your training session (preferably face to face with a backup plan in case this is not possible). This section offers tips and advice on implementation whilst taking you through the planning stage. There are a number of factors to consider:

- · When do you hope to deliver the training?
- · How many participants do you want to attend?
- · Have you booked the room and had it confirmed?

· Has it been properly advertised and have the participants been recruited?
· Are all participants aware of the timing and workload?

As we all know, Perfect Planning Prevents Poor Performance. Once you have set your date and time, etc. and agreed on which module or modules you will deliver, you need to recruit training participants.

## How to Attract Participants to the Training

If you have participated in a BioBeo training yourself or already implemented BioBeo activities, you are the perfect person to promote it as you also bring your own experiences using the current manual to prepare yourself.

First you need to make a decision on who the participants of your training will be. The main aim is to empower stakeholders to engage parents and students at all levels and elements of decision making to make bioeconomy education part of education procedures, curricula and activities. Thus, you need to approach people who might be interested and able to do this: school leaders, teachers, parents, student leaders, environmental organisations, youth organisations, municipalities, etc.

There are several methods you can use to attract others to your training – we can explore the pros and cons to help you decide what is right for you in the following table:

| Tips to attract participants | Positives | Things to consider |
|---|---|---|
| Professional newsletter and similar: create a professional advertisement or article for your training | Such newsletters reach a targeted professional audience and they are usually considered to be a trusted source.<br><br>People reading them expect to have content that is similar to your promotion. | Their reach might be limited due to GDPR regulations.<br><br>Many people delete newsletters without reading them. |
| Promotion via social media: Creating attractive social media content to engage with peers can support recruitment and interest in your training. | Social media posts can reach a wide audience.<br><br>Content can easily be shared by others to increase reach.<br><br>There are lots of education groups on social media who may be interested in your training. | Some people who could benefit from the training may not use social media or may not consider it a trusted source.<br><br>Given the large audience social media has, your training could end up being for a large audience (unless numbers are limited) |

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|---|---|---|
| Talk to your colleagues you know: Start networking with those around you, peers you know or those you collaborate with from other schools – you never know who may be interested or know someone who is! | You could reach people you know, to support those closest to you.<br><br>Having a training group in your local area can make training logistics easier. | Your reach may remain quite localised, which may be an issue if you wish to train a wider audience. |
| Posters/flyers/leaflets: Designing posters/flyers/leaflets is a great way to attract colleagues to your training. If you have them ready to hand out when an opportunity arises, you can attract people from across your local area. | Nicely designed posters/leaflets can be very attractive and can engage numerous participants.<br><br>Some people prefer having information in their hand in a physical format that they can read at their own pace, in between their duties. | Cost implications are large.<br><br>You need to meet people to hand them the documents.<br><br>If they are sent by regular mail, they might be discarded without reading. |
| Needs Analysis: Finding out the needs of those interested in taking part is very useful, not only to engage with peers but also to find out details about their needs and expectations, so you can amend your training to their needs. | Needs analysis can be done through informal discussions or a short survey.<br><br>Allowing the participants to influence the training helps with engagement and retention. | Potential time and resources restraints |

In addition to the above, throughout this manual, there is guidance on organising your training. Regarding recruitment, you will have ideas yourself on who to contact, depending on your own networks.

## THINGS TO CONSIDER

Will it be internal at the school where you teach? What is the best method for promoting the training? It may be a mix of word of mouth, emails, Facebook, leaflets and whatever other method is deemed most suitable for your target group. Allow sufficient time between promotion and delivery for greater success.

Below you will find a session planning task to support you. It is important to complete this form as part of your training event planning, so have a look at these, too. There is a checklist in the planning section to help you get started.

Before implementing the training course, you are invited to read through the whole training course carefully, to read through all worksheets, annexes and references, and to explore all links mentioned. Even if you participated in a BioBeo training, you may not have experienced the whole programme. It is important you understand the essence and importance of each module, and the intended purpose of each activity, but also to allow a certain flexibility in the implementation of the training course. Indeed, there might be the need for you to adapt the format of certain activities. Therefore, you should approach the training package with a lot of flexibility in terms of implementation, as long as the content is being kept to its essence.

Time given to participants to brainstorm, discuss and share ideas amongst themselves for each topic is usually highly valued. People like to share their personal experiences as well as seek support from their colleagues for their own professional challenges. For this, you need to ensure that the training is a safe space for everybody. It is important that you allocate a good amount of time for self-reflection, group reflection, but also feedback and sharing. If you are delivering the training on multiple occasions, it might be a good idea to re-visit some of the topics covered earlier, so that participants can share their longer-term reflections and possible success stories of implementing what they had learnt.

To create a safe learning space, it can be a good idea (and good practice) to set a group agreement to support participants and the training. For example, a group agreement may include the following:

- · Be non-judgemental
- · Be respectful
- · Mobile phones on silent
- · Practice good listening
- · Be inclusive
- · Enjoy!

Including the participants in the creation of the group agreement helps to set the scene and breaks the ice. Making them aware that there is no such thing as a silly question is often a good start and then setting the scene for an inclusive, respectful learning environment actually aids learning.

One ever-present example: Why do phones need to be silent? Mobile phones are one of the most common disruptors in a training session so make participants aware of it and ask them to respect the agreement. If you do not set an agreement then there will always be the one participant who has a phone constantly ringing and thinks it is okay for everyone to listen in (or jump out of the room mid-sentence).

## BEFORE THE SESSION – CHECKLIST FOR ORGANISATION

| Planning a BioBeo training session | Tick list |
|---|---|
| Prepare all training materials and evaluations | |
| Set date, time, venue | |
| Advertise and promote in relevant places | |
| Recruit and confirm attendance – send email confirmations or texts | |
| Rehearse or review materials prior to delivery, ensuring session plan and timings are clear | |
| Do one final check on the day of the training, room, resources, etc. | |
| Ready to deliver training with a backup plan if needed | |
| Allow time to evaluate the session | |

## AFTER THE SESSION – QUESTIONS FOR SELF-REFLECTION OF THE TRAINER:

- Did all the participants appear engaged?
- Did all participants take part in the discussions?
- Did participants' questions seem relevant to the topic?
- Were you or somebody else in the group able to answer the questions? If there are open questions, make sure to search for answers and come back to them at the next session.
- Were participants asked to reflect on the training?
- Did participants complete an evaluation?
- Did the evaluations and reflections confirm understanding of the content?
- Did you reflect on the training and write down your comments?
- If you did reflect, were the activities appropriate?
- If you delivered the training again, would you deliver it the same? If not, what would you change?

# Ensuring the quality of your training

The resources in this manual will support you with evaluation and quality standards. There needs to be standardisation across the course, regardless of which country or community it is being delivered in. This manual will support you to develop your training plans and to consider your learners' needs. It is normal to feel more comfortable with some activities over others and just as we like our learners to try new things, stepping out of your comfort zone helps you to grow and develop.

This handbook introduces you to quality benchmark standards, assessment and evaluation methods for the training and along with your observations, you will have all the tools to support you in delivering a successful training programme. It is important to monitor a number of aspects, including the evaluation of skills and the monitoring of benchmark quality standards for the training itself.

EVALUATION OF SKILLS

It is important to allow participants to evaluate their skills developed in the training session(s). It may be a simple skills assessment or a more in-depth analysis of how they have developed. Evaluation can be divided into two sections: firstly – the evaluation of the skills and knowledge development by the participants. The second section is the evaluation of the training and maintaining key standards of quality, to ensure high-quality training is provided. More information on each can be found in the following table.

QUALITY STANDARDS FOR TRAINING

As well as assessing how the participants developed, it is also beneficial to evaluate how the training session went, how you did as a trainer, and ensure that minimum quality standards are adhered to during the sessions. Below you can find a set of quality standards and how to assess each one.

| Section | Quality Standard | Minimum standard | How to Assess |
|---|---|---|---|
| Evaluation of Skills | Development of skills relating to module topic and relevant competencies | This differs from person to person and therefore a minimum standard cannot be placed on this. | Self-assessment of skills (including learning log)<br><br>Participant evaluation form (for open-ended questions with examples) |
| | Satisfaction with personal development/development of self-awareness | Min 4 out of 5 satisfaction rating | Session Evaluation Form |
| Evaluation of Training | Satisfaction with the venue and organisation of the event. | Min 3 out of 5 satisfaction rating | Informal discussion<br><br>Session evaluation form |

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|---|---|---|---|
| | | | |
| | Satisfaction with the content and trainer | Min 4 out of 5 satisfaction rating | Informal discussion<br><br>Session evaluation form |
| | Satisfied with time spent during the session, developing skills to support parenting and everyday life. | Min 4 out of 5 satisfaction rating | Informal discussion<br><br>Session evaluation form |

When (further) developing your skills as a trainer, there are some aspects which you will develop just through practice - so the more you do it, the more skilled you will become – and some may need more conscious professional self-development. To help you start, reflect on some of the following:

- How do you prefer to introduce yourself?
- What information do you want to share about yourself? How much are you willing to share about challenges you have been facing?
- What learning methods do you feel comfortable with? How is it reflected in your teaching/training style and methods?
- How might you respond to unexpected questions and comments? How would you work around unexpected events (loss of internet connection, reduced number of attendees, additional participants not involved in all sessions)?

**GOOD LUCK! YOU WILL BE GREAT!**

# What trainers need to know

## Theoretical background

In order to deliver a training on parental and community engagement, and child participation in education innovation and sustainability, you need to understand the importance of these topics and be in possession of the relevant research results. Sharing background knowledge with your participants during the training can either be part of the introductory phase (e.g. using a PowerPoint presentation), or it can be a horizontal approach that you keep repeating whenever it is relevant.

Below you can read the most important notions that are all based on extensive, international research evidence. More details of the theoretical background are included at the beginning of each module.

To promote bioeconomy[1], circularity[2] and a change in our lifestyle through education, professional educators need to co-operate with the parents and the community, not only because it is impossible to make relevant changes in the thinking of future generations without them, but also because the very notion of „everything is linked to everything else" suggests such an approach. In order to achieve such co-operation, school governance – and the governance of education at higher levels - must be transformed significantly so that families and the community can become actively engaged in education policy making and school life. This will lead to children becoming more active citizens who understand the importance of bioeconomy and circularity. There is a growing consensus on the changing role of school and education that necessitates a change of approach from educating obedient workers for the assembly line to educating creative, critical thinkers for a world of accelerated change and less need for repetitive work done by people.

Decreasing participation, especially of younger generations as active citizens in community, elections and civic life is a worldwide phenomenon. Participatory practices in schools, engaging parents, children, teachers, and others are effective for school stakeholders to experience active citizenship in a safe environment, as well as the consequences of opting out of decision-making. Both parental engagement and child participation also have a direct positive effect on the learning outcomes of the children and also support the lifelong learning of parents and teachers.

Student and parent organisations have long advocated for participatory decision making in education at all levels – from European and national policy making to daily decisions at school or class level. This demand has only become more topical after the school closures of 2020-22 when the problems of education systems became more visible to parents, and also for students. For many, the need to attend formal education became questionable. Parent organisations have long argued for engagement and participation, and to make school a safe testing field for democratic citizenship skills.

So far, the prevalent approach to citizenship education has been the inclusion of the domain in the curriculum, and thus creating the framework for learning ABOUT citizenship and democracy. The BioBeo project is an excellent opportunity to change the main trend of civic/citizenship education from learning about to learning by doing. A meta-analysis study of over 13 000 scientific publications proves

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[1] „using renewable biological resources from land and sea, like crops, forests, fish, animals and micro-organisms to produce food, materials and energy" - https://research-and-innovation.ec.europa.eu/research-area/environment/bioeconomy_en

[2] https://thesustainableagency.com/blog/what-does-circularity-mean/

that students learn far better if they can experience curricular content rather than just learning about them. This is why the educational materials of the BioBeo project all contain not only hands-on activities, but also elements of parental and community engagement.

This also means that teachers have three very important tasks that hopefully this training can help with:

1. they should understand and prepare for their role in supporting parents in general to become better educators of their children as well as more active citizens, starting from school contexts,
2. they should understand and prepare for their role in acknowledging child agency and providing opportunities for meaningful participation of children of all ages, and
3. teachers also need to be active citizens of their own schools.

Deliverable 2.1: Train the Trainer Manual – Engaging stakeholders, especially parents and students. at various governance levels

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# TRAINING MODULES

## 0. Introduction, getting to know each other

This module is absolutely necessary if the participants meet at the training for the first time. However, starting with one or two activities from this module can also be beneficial for people who are not strangers. Learning things about each other that are not related to work may support group cohesion. You should not forget that learning together may be very different from e.g. belonging to the same teaching team.

In case you have parents, teachers and student representatives in your group, these activities help establish an equal relationship between people whose relative relation is not equal in everyday life.

ACTIVITIES

| Title | **Names and balls** |
|---|---|
| Time | 12 minutes |
| Necessary tools | One or two small, soft balls |
| Description | Ps stand in a circle. Each P says their name, an adjective that alliterates with it and shows a movement. In the first round Ps pass around the ball saying their own name, the adjective and showing the movement. In the second round they say the name, adjective of the person they pass the ball to. In the third round they show the movement of the person they pass the ball to. |
| Further tips | In a more advanced version, two balls can go around simultaneously |

| Title | **Hula Hoop** |
|---|---|
| Time | 10 minutes |
| Necessary tools | One large hula hoop |
| Description | Ps stand in a circle holding hands. They have to pass around a hula hoop without letting their hands go. The F encourages them to race against time. Make at least three rounds. |
| Further tips | If any of your participants have physical problems either choose another activity or offer them the role of time keeper. |

| Title | **What have I got in my hand?** |
|---|---|
| Time | 12 minutes |
| Necessary tools | One small, personal object for each participant |
| Description | Each P chooses a small object, something that is important to them. They go around and exchange objects in the following way: everybody walks up to one-another, tell their name to each other, a sentence-long story about the object and they exchange objects. After the first exchange they don't tell their own name, only the name of the owner of the object they have in their hands. The game continues for a few more minutes so that everyone exchanges objects at least 5 times. At the end everyone stands in a circle and one by one gives back the objects to their owner and tells |

| | |
|---|---|
| | the story that they got to know. For example: This pen is Clara's and it is important for her because she got it from her grandmother who she loves very much. |
| Further tips | After this game, hand out name tags to make sure they can call each other by their name. You can ask each participant to write the name they want to be called on the tags. |

**Further ideas for alternative activities**: https://www.signupgenius.com/groups/get-to-know-you-games-icebreakers.cfm

Deliverable 2.1: Train the Trainer Manual – Engaging stakeholders, especially parents and students. at various governance levels

BioBeo

# 1. Parental and community engagement, child participation

## KNOWLEDGE BASE

**Parental engagement**

Parents play a special role in the lives of their children. When we mention parents in this document, we mean any person who has **the legal responsibility** for a child, be it a biological or adoptive parent or a guardian. However, parenting a child is usually not only with the legally responsible "parent". Spouses of parents with no legal role, older siblings, grandparents and other family members, even au pairs or neighbours nearly always play a co-parenting role and co-educate children. For this reason, we consider parents and the broader family with a co-parenting, co-educator role when parental engagement is discussed.

You should be aware that all parents want the best for their children, even if their idea of what is best is not in line with your position. Some parents need more help from you as a trusted professional to deliver on this wish. To be able to support them, the first step is to build trust. You must be aware that for some parents a teacher might be a figure of authority or someone they are afraid of, possibly based on their own schooling experiences. Parents are your first and most important equal partners in educating a child.

First of all, let's get the legal responsibility angle discussed and out of the way. All countries of Europe (and also of the world apart from the USA) have ratified the UN Convention on the Rights of the Child. As a result, regardless of what other legislation, e.g. education acts say, parents have the responsibility for the education of their children, and schools are primarily accountable to them. As a result, introducing something new in the curriculum or education programme of the school needs their acknowledgement and, in an ideal case approval. Parents have the right to take part in decisions that affect their children, and introducing new content is definitely such a case.

There are more important, pedagogical and psychological reasons why BioBeo has decided to highlight the importance of parental engagement. Parents are the primary educators of their children. This not only means that they are the first during the course of life, but also that they have a major impact on the learning of their children. We know from research that parents have the largest impact on a child's attitude to learning (and school) up to age 11–12. This role is taken over by the peer group in teenage year, but parents are still in second place. Thus, school and teachers, with much less impact, need to team up with parents to have the support of the home for the cause. *For your programme to be successful, you need parents to know about what you are doing, to be interested in what their children do, and to be supportive and not obstructive.*

In developed countries, the role which parents are expected to play in their children's schooling has changed significantly over the past 20–30 years. Parents are now pressured to be more engaged, acting as '…*quasi-consumer and chooser in educational 'marketplaces'* or '*monitor and guarantor of their children's engagement with schooling*'[3].

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[3] Selwyn, N., Banaji, S., Hadjithoma-Garstka, C. and Clark, W. (2011), Providing a platform for parents? Exploring the nature of parental engagement with school Learning Platforms. Journal of Computer Assisted Learning, 27: 314-323. https://doi.org/10.1111/j.1365-2729.2011.00428.x

Additionally, it is worth mentioning that the cooperation between school and family is strongly recognised to progressively reinforce a collaborative atmosphere, by driving parents, pupils, and teachers to a better understanding of the school's target and aspiration, both as an educational and social community. In particular, according to Epstein (2002), if parents are well-informed and aware of what exactly is happening at school, if they are encouraging and if they are involved in the life of their child, pupils tend to have more positive attitudes toward education, higher ambitions, and a better performance[4].

With regard to the types of parental engagement/ involvement, Epstein's classification of practices in 2002 has been widely used in establishing a typography for parental involvement within school.

**Epstein's Six Types of Parental Involvement**[5] :

i) *PARENTING*: Help all families establish home environments to support children as students.
ii) *COMMUNICATING*: Design effective forms of school-to-home and home-to-school communications about school programs and children's progress.
iii) *VOLUNTEERING* and attending events: recruit and organise parent help and support, improve recruitment, training, activities, and schedules to involve families as volunteers and as audiences at the school or in other locations.
iv) *LEARNING AT HOME*: Provide information and ideas to families about how to help students at home with homework and other curriculum-related activities, decisions, and planning.
v) *DECISION MAKING*: Include parents in school decisions, developing parent leaders and representatives.
vi) *COLLABORATING WITH COMMUNITY*: Identify and integrate resources and services from the community to strengthen school programs, family practices, and student learning and development.

Although this typology was considered as the starting point, some years later Goodall and Montgomery initiated a more refined approach that moves interest away from parents' interactions with school generally towards a more specific focus on children's learning. They make a key distinction between involvement and engagement suggesting that the latter invokes a "*feeling of ownership of that activity which is greater than is present with simple involvement*", by suggesting a continuum that moves from parental involvement with schooling to parental engagement with children's learning[6]. This approach includes the recognition that learning is not confined to school and the importance of supporting the learning of children inside and outside school. This approach can be particularly important in the case of parents (and of course children) from ethnic minorities, with low levels of education (and bad experiences with their own schooling) or those facing economic difficulty who, as shown by research, are more likely to consider their involvement in school difficult but who nevertheless have strong

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[4] Xanthacou, Y. (2012). The Role of Parental Involvement in Classroom Life in Greek Primary and Secondary Education. 2013. Vol.4, No.2, 118-123. Published Online in February 2013 in SciRes. https://www.scirp.org/journal/paperinformation.aspx?paperid=27952

[5] Zaidi, R. et. al (2021). Behind Successful Refugee Parental Engagement: The Barriers and Challenges. p. 913. Retrieved from: https://journals.sfu.ca/cje/index.php/cje-rce/article/view/4537/3063 and California Parent Center. (2022). Parent Involvement. Retrieved from: https://newscenter.sdsu.edu/education/parent/involve.aspx ,

[6] Goodall, J., Montgomery, C. (2014). Parental involvement to parental engagement: a continuum, Educational Review, 66:4, 399-410.

commitments to their children's learning[7]. This is a key issue to consider during the design process of introducing new curricular items such as bioeconomy.

**Child participation**

In all modern education movements, the voice of the learners is crucial. It is even more crucial to listen to their concerns, ideas and needs in the case of programmes that are embedded in real life and local communities.

According to the UN Convention on the Rights of the Child (UNCRC) that has been ratified by all European countries (and all other countries except for the USA globally), children have a basic right to the education that is best for them, and they also have a basic right to express their opinion, as well as this opinion to be heard on all topics that have an impact on their rights. A closely related right is to have access to all the information they need to form their opinion. The Convention acknowledges age differences, and subsequently there is an obligation to scaffold these rights with methods that consider the evolving capacities of children. This creates the basis, the legal obligation for facilitating the participation of children in decision-making in education using age-appropriate methods.

From a methodological point of view, there are also several reasons why child participation is important in any educational planning and decision-making, but especially in innovative, new programmes that are specifically designed to address challenges that the students can relate to. In BioBeo we are pursuing the approach urged by both child rights activists and innovative educators: "Nothing about them without them."

We consider it obvious that in early years, as well as from a certain age onwards, children can choose what they are interested in and want to learn more about. However, there are the in-between years that coincide with compulsory education when there is no or very little room for these individual interests. When introducing new content, the best approach is to open the door to learners and target students who are interested – or can be made to be interested – in any of the five core themes. With the education programme offered by the BioBeo consortium, the aim is to avoid the old-school approach: "we will learn about bioeconomy because I told you so".

According to research carried out in 2015 and refreshed in 2019[8] in over 20 European countries, students clearly wish to be part of decision-making in all aspects of education, but in most countries, there are no mechanisms for that for primary school students at all, usually only school level mechanisms for secondary school students, and nothing at municipal, regional or national level. Student representation is sporadic in decision-making bodies such as school boards, and even if there are student representatives, their participation is often formal as no age-appropriate methods are used to elicit their real voice.

There are three main arguments that are regularly used to counter child participation and especially the participation of younger children.

1. They are too young to have an opinion.
2. They are not experienced enough to form a relevant opinion.

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[7] Ibid.
[8] (Salamon-Haider 2015., 2019.)

Deliverable 2.1: Train the Trainer Manual – Engaging stakeholders, especially parents and students. at various governance levels

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3. They are not able to participate in the discussions of adults.

Jasper Juul, the recently deceased Danish psychologist published a book entitled *Leitwölfe Sein* in German (it translates as 'Become the leader of a pack of wolves', but no English translation is available at the time of writing) that compares the fight for children to have their rights acknowledged and catered for to the fight for women's rights. From a European perspective, it is difficult to imagine that a woman may not have the right to open her bank account without the approval of her father or husband, but it was the reality even a few decades ago in our countries as women were considered incapable of making reasonable and responsible financial decisions. Today, we acknowledge that it has nothing to do with sex or gender.

We tend to assume far lower ability levels in children than they actually have, and with American parenting methods not compliant with child rights becoming more and more influential in Europe, the situation has been worsening. Our knowledge of child development shows this very clearly, but we also know it from experience. Children's organisations, such as the Scouts or Pioneers have been giving children a lot of credit and trust. While parents are accompanying children to school for a longer and longer time, and schools are afraid to or forbidden to just let children go home at the end of the day, children who are members of these organisations build their own campfires and prepare their food over it in summer camps.

Gaudiopolis[9], a children's republic operated by a priest, Gábor Sztehlo right after the second world war gave decision-making power to children, some very young. The Summerhill Schools movement or the Sterrenscholen[10] (Star Schools) in the Netherlands are two long-established examples of children, including young ones making the core decisions on their schooling, their own curricula and learning paths. In China, Anji Country transformed all their kindergartens to implement a methodology where teachers are only observing, they don't "interfere" with the learning of children[11]. Their kindergartens have fireplaces for children (aged 3–6) and a lot of free standing "dangerous" objects. There are barely any accidents, children look out for each other. There are several videos on the internet of very young children taking care of siblings, cooking for them, changing diapers, etc. They are completely competent in doing it. There is experience showing that 2-year-olds are able to create the internal rules of their crèche group and also have them kept. We can learn from all these examples both that it is doable, and also how it can be done well.

**Community engagement**

Sustainable Development Goal 4 (SDG4) and international treaties governments have ratified create an obligation for governments to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all". 17 Sustainable Development Goals were defined in the UN 2030 Agenda adopted by all United Nations Member States in 2015 to guide governments towards "peace and prosperity for people and the planet, now and into the future". This is an obligation that UN Member States have undertaken, but delivery is at the level of national consideration and competence.

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[9] Kunt, G. (2022) The Children's Republic of Gaudiopolis The History and Memory of a Children's Home for Holocaust and War Orphans (1945–1950). CEU Press, Budapest, New York
[10] Smit, F., (2015). Variatie in schooltijd en onderwijskwaliteit. Radboud University, Nijmegen
[11] Moffet, C. (2021). The Play of Art: Propensity and Pedagogy in Contemporary Chinese Early Childhood Education. Studies in Art Education, 62:3, 222-235

In this spirit and in order to support countries in delivering on their pledge, UNESCO published a policy document, Rethinking Education – Towards a Global Common Good on the implementation of SDG4. One of the main demands of the document is to re-define responsibility for education as that of all, paving the way for a holistic approach and collaboration between formal, non-formal and informal education providers. According to this approach, everybody is a learner and also everybody is an educator.

Rethinking Education clearly demands for exploring new education ecosystems to be able to cater for diverse needs and educational goals. It also links all education domains, including STEM to well-being and humanistic approaches. This, in the reality of diverse societies, is only possible through a wide understanding of education providers and close collaboration among them. In their document, UNESCO proposes the establishment of learning space networks with the school being part of it with some role as a way to preserve school and prevent them from becoming obsolete. The overall goal, according to this policy document, is to develop open and flexible lifelong learning systems from cradle to grave that are built in multiple learning spaces with formal, non-formal and informal education all acknowledged, valued and recognised.

Bronfenbrenner's ecological model[12] defined the ecosystem of various educators around the child, highlighting the most important educators in the life of a child that need to be engaged at various levels. As you can see, the model also clearly shows the importance of various players to be engaged at different governance levels.

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[12] Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American psychologist, 32* (7), 513.
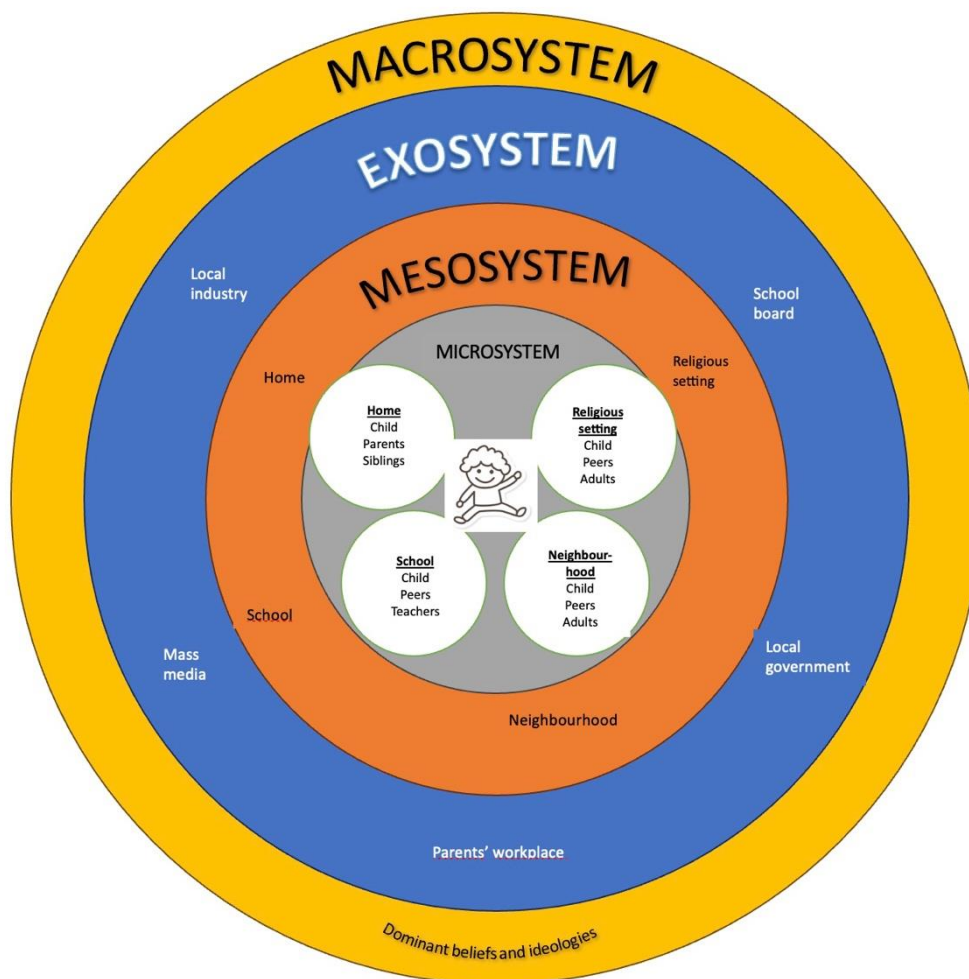
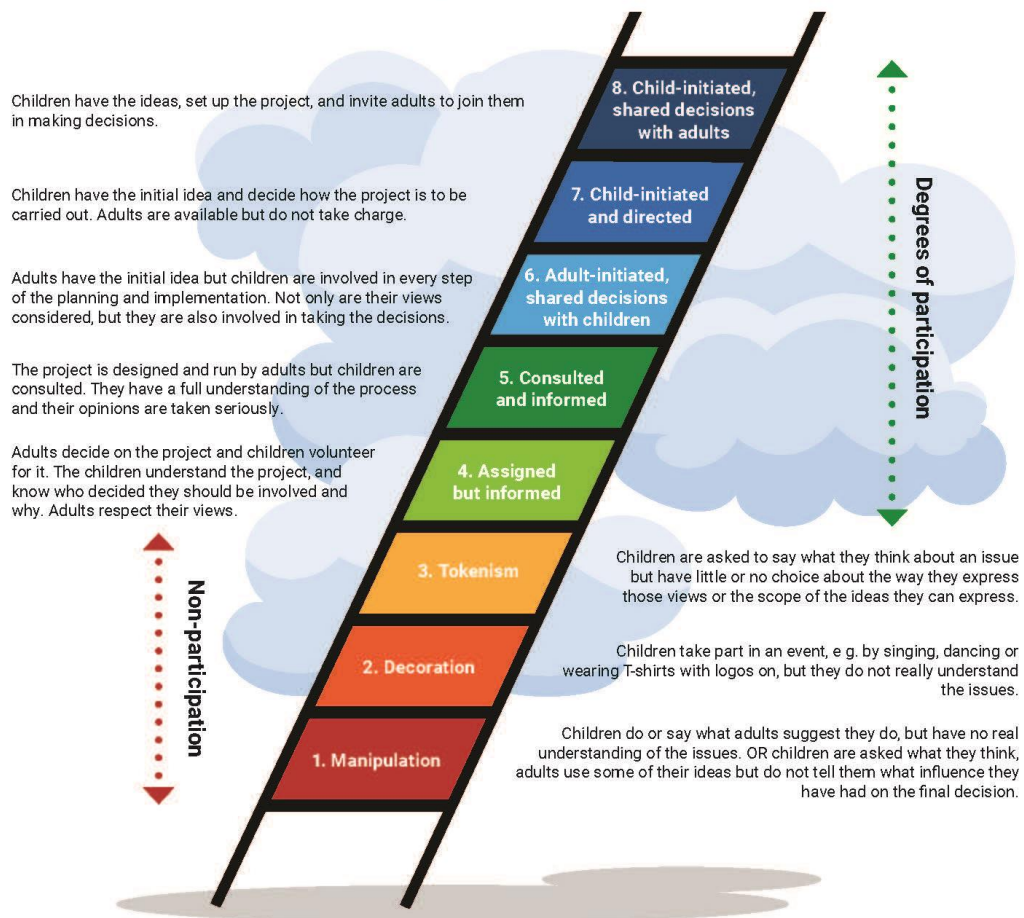N.B. In current realities the religious setting is often replace by social media in the model.

Picture based on Urie Bronfenbrenner' ecological systems theory.

## ACTIVITIES

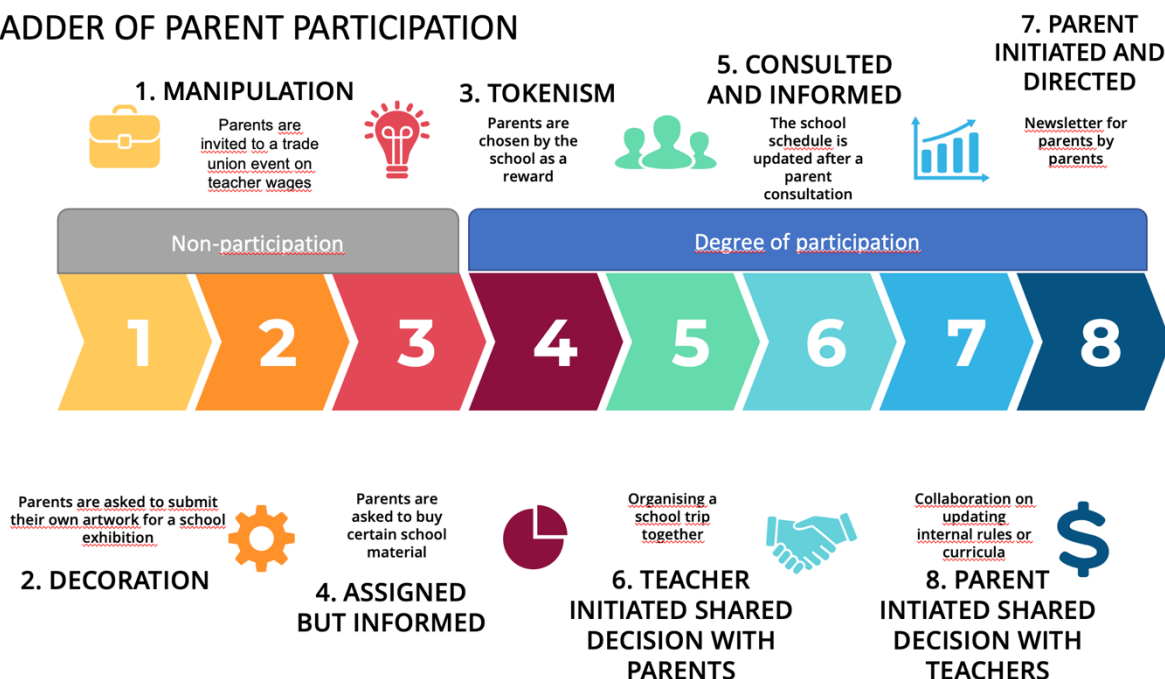| Title | **Finish the sentence** |
|---|---|
| Time | 10 minutes |
| Necessary tools | Sheets of paper and pen for each participant |
| Description | When teachers and school leaders talk about parents and working with them, the sentences often start like this: *My main problem with parents is that…* In this activity, Ps are first asked to finish the sentence for their own situation. Everybody writes one sentence. Once they are put on paper, everyone reads their own sentence out. |

| Title | **Ladder of Participation** |
|---|---|
| Time | 30 minutes |
| Necessary tools | Images printed or projected, list of examples printed for each group, pens |
| Description | Roger Hart used the Ladder of Citizen Participation developed in 1969 by Sherry Arnstein, and developed the Ladder of Child Participation in 1992, just 3 years after the adoption of the UNCRC. It also formed the basis for the Ladder of Parental Participation that was developed by BioBeo partner Parents International. They are useful tools to check if activities that are considered as including child participation or parental engagement are really participatory or not.<br><br>Ps form small groups and are asked to judge the following parental involvement/engagement examples. What level on the ladder are they? (See printable version below, solutions are provided for the trainer here).<br><br>The school leader holds a meeting for all parents at the beginning of the school year – 1<br><br>Parents are asked to provide coffee and cake for the jubilee event of the school – 4<br><br>Parents decide to organise a fundraiser event on the occasion of the school jubilee, using the school premises – 7<br><br>The school leader chooses a parent to represent the school at a municipal national holiday commemoration – 2<br><br>A parent is invited to all teacher meetings, but not offered any preparation or preliminary information before the meetings – 3<br><br>The school board consists of an equal number of representatives of teachers, parents and students, and makes decisions about school budget, events, the organisation of the school day, curriculum, etc – 8<br><br>In the next step, Ps are asked to find 3 types of parental or child engagement that is level 6, 7 or 8. If there are none they should be asked to design at least one. |

## Hart´s (1992) Ladder of Participation

Children have the ideas, set up the project, and invite adults to join them in making decisions.

**8. Child-initiated, shared decisions with adults**

Children have the initial idea and decide how the project is to be carried out. Adults are available but do not take charge.

**7. Child-initiated and directed**

Adults have the initial idea but children are involved in every step of the planning and implementation. Not only are their views considered, but they are also involved in taking the decisions.

**6. Adult-initiated, shared decisions with children**

The project is designed and run by adults but children are consulted. They have a full understanding of the process and their opinions are taken seriously.

**5. Consulted and informed**

Adults decide on the project and children volunteer for it. The children understand the project, and know who decided they should be involved and why. Adults respect their views.

**4. Assigned but informed**

**Degrees of participation**

**3. Tokenism**

Children are asked to say what they think about an issue but have little or no choice about the way they express those views or the scope of the ideas they can express.

**2. Decoration**

Children take part in an event, e.g. by singing, dancing or wearing T-shirts with logos on, but they do not really understand the issues.

**1. Manipulation**

Children do or say what adults suggest they do, but have no real understanding of the issues. OR children are asked what they think, adults use some of their ideas but do not tell them what influence they have had on the final decision.

**Non-participation**

Picture based on Hart's Ladder of Participation

## LADDER OF PARENT PARTICIPATION

Picture by Salamon, 2023 based on Arnstein, 1969

| What level on the ladder are they? | 1–8 |
|---|---|
| The school leader holds a meeting for all parents at the beginning of the school year | |
| Parents are asked to provide coffee and cake for the jubilee event of the school | |
| Parents decide to organise a fundraiser event on the occasion of the school jubilee, using the school premises | |
| The school leader chooses a parent to represent the school at a municipal national holiday commemoration | |
| A parent is invited to all teacher meetings, but not offered any preparation or preliminary information before the meetings | |
| The school board consists of an equal number of representatives of teachers, parents and students, and makes decisions about school budget, events, the organisation of the school day, curriculum, etc. | |

Deliverable 2.1: Train the Trainer Manual – Engaging stakeholders, especially parents and students. at various governance levels

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| Title | **Opinion line** |
|---|---|
| Time | 30 minutes |
| Necessary tools | - |
| Description | Ps stand in a straight line. F says a statement, Ps decide where they stand on the line if one end of the line means they agree 100%, the other means they disagree 100% with the statement. F asks some of the Ps to comment on where they stand and why. <br><br> Statements: <br> - All parents must be part of school life. <br> - If there are difficulties with parent-teacher communication, it is always the teacher who should find a solution. <br> - Parents and teachers always want the best for children. |
| Further tips | Statements can be changed according to the detected issues that should be addressed. |

| Title | **Can you fix that?** |
|---|---|
| Time | 50 minutes |
| Necessary tools | Printed statements, pens |
| Description | Ps work in pairs. Each pair gets the printed statements (see below), and they have to reflect on them or try to rewrite them to have participatory statements instead. They should also discuss how regular school practices need to change for that. |
| Further tips | In a more advanced version, two balls can go around simultaneously. |

| Parents say: | |
|---|---|
| Teachers only send home bad news. | |
| Teachers don't make parents feel welcome. | |
| Teachers don't do what they say they will. | |
| Parent-teacher conferences are routine and unproductive. | |
| Teachers teach too much by rote. | |
| Teachers care more about discipline than teaching. | |
| **Teachers say:** | |
| Parents don't seem interested in school. | |
| Parents don't show up. | |
| Parents promise, but they don't follow through. | |
| Parents only pretend to understand. | |
| Parents do their children's work for them. | |
| Parents worry too much about how the other kids are doing. | |

| Title | **World cafe discussion** |
|---|---|
| Time | 60 minutes |
| Necessary tools | Four tables and enough chairs for each participant, large sheets of paper, colour markers |
| Description | The F explains that this discussion will be about moving away from a deficit approach towards an asset-based one and instead of calling some parents "hard to reach" we will try to see them as "parents you haven't yet managed to engage". |
| | Participants work in 4 small groups at tables covered with a large piece of paper with one question. One person is appointed to be the table host in each group. This person has the responsibility of taking notes, but others can draw, write, doodle, as well. Participants have 10 minutes to discuss different topics at the 4 tables. After each round the people move to a new table, leaving only the table host sitting in the same place. After each round the table hosts give a short sum-up of the discussions, and the new group continues the discussion based on what has already been said. |
| | After the 4th round the table hosts summarise the discussions by presenting their "tablecloth" and the other participants are asked to comment on anything they learned or heard that was interesting, surprising or controversial. |
| | Questions: |
| | 1. How do you engage with parents who have low levels of education? <br> 2. How do you engage with parents who are of much higher socio-economic status than you? <br> 3. How do you facilitate the voice of younger children in decision-making? <br> 4. What kind of decision-making situations are you engaged in that may also include parents and children? |

**Further reading**

School, Family, and Community Partnerships: Your Handbook for Action by Epstein, Joyce L., Sanders, Mavis G., Sheldon, Steven, Simon https://www.goodreads.com/book/show/170994918-school-family-and-community-partnerships

Beyond the Bake Sale: The Essential Guide to Family/School Partnerships by Anne T. Henderson, Karen L. Mapp, Vivian R. Johnson and Don Davies
https://www.goodreads.com/book/show/619293.Beyond_the_Bake_Sale

**Online learning options**

External community engagement https://microvet-vle.eu/course/view.php?id=31

Effective home-school communication https://microvet-vle.eu/course/view.php?id=113

## 2. Communication in diverse groups

### KNOWLEDGE BASE

For this module, you need to have basic knowledge about communication as well as diversity in education.

*Communication*

Communication is the process of exchanging messages or information between two or more parties. It is a complex two-way process, involving the encoding, translation and decoding of messages. Effective communication requires the communicator to translate their messages in a way that is specifically designed for their intended audience. Creating and delivering an effective message requires a basic understanding of the communication process. Most bioeconomy education, parental engagement and child participation related proposals or presentations require the clear and unambiguous communication of a message in a way that can be clearly understood by the recipient. It is human nature to assume that when we communicate, we are doing so effectively, and that if anything goes wrong consequently the responsibility for that must rest with the recipient. Communication is a skill and like any skill it requires practice. It is improvement through practice that differentiates a skill from other forms of knowledge. Understanding the theory of communication and effective presentation will not in itself make you a brilliant communicator or presenter but should make you aware of how to maximise the impact of your presentations. The most important thing to remember is that the message that you intend to communicate is likely to be misunderstood. Therefore, in addition to carefully preparing and presenting your message, stay alert for any signs that your audience is misinterpreting it. It is up to you, the facilitator, to continually check that your message has been received, understood, correctly interpreted and filed in the receivers' minds.

The basic forms of communication are verbal and non-verbal communication. It can be in the form of meetings, speeches or writing, gestures or expressions.

*Non-verbal communication*

Non-verbal communication does not involve the use of words. It rather uses gestures, cues, vocal qualities, spatial relationships etc. to convey a message. It is commonly used to express emotions like respect, love, dislike, unpleasantness, etc. Non-verbal communication is less structured compared to its verbal counterpart and is most often spontaneous. As it is not planned, it is sometimes considered more reliable than verbal communication, as it reflects the communicator's true feelings. Non-verbal communication enhances the effectiveness of the message as gestures and body language are registered easier and quicker with the audience than verbal communication. Non-verbal communication, when combined with verbal communication, makes a presentation more effective and has a greater impact on the audience.

*Verbal communication*

However, non-verbal communication has its limitations. Many complex ideas, thoughts or messages have to be communicated sequentially to be meaningful. Verbal communication involves the arrangement of words in a structured and meaningful manner, adhering to the rules of grammar. The message is then conveyed to the audience in either spoken or written form.

Deliverable 2.1: Train the Trainer Manual – Engaging stakeholders, especially parents and students. at various governance levels

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*Speaking and Writing*

Effective verbal communication involves the use of both speech and writing to transmit a message. While oral communication is more effective in reaching a focused target audience, as it involves interaction and additional non-verbal cues to augment the speech, written communication is necessary for reaching a large number of scattered recipients.

*Listening*

Equal importance should be given to listening and expression. Oral communication cannot be effective unless the audience is good at listening and most of its content is forgotten after a presentation. Developing good listening skills is essential for grasping the contents of an oral presentation and retaining them.

The process of communication is susceptible to many barriers. These can be categorised into problems caused by the sender, problems in message transmission, problems in reception, and problems in receiver comprehension.

Though most communication barriers require situation-specific handling, a few basic methods for dealing with them are available. You should know your subject, focus on the purpose, know your audience, and use any help you need to deliver your message as fully as possible.

*Diversity*

Diversity in the classroom refers to differences in social identities. A person's age, race, socioeconomic status, gender identity, gender expression, sexual orientation, disability, and nationality all comprise a person's social identity. Our identities are intersectional and overlapping, and many aspects of our identities change over time.

Types of diversity that can be present in the classroom include:

- Ability diversity: This includes differences in students' physical, mental, and learning abilities.
- Age diversity: This includes differences in students' ages.
- Gender diversity: This includes differences in students' gender identity and expression.
- Ethnic diversity: This includes differences in race, ethnicity, national origin, and languages spoken at home.
- Religious diversity: This includes differences in belonging to and identifying with the values and/or practices of a particular religion or sect.
- Socioeconomic diversity: This includes differences in income, education levels, occupations, and housing security and stability with regard to students or their families.
- Experiential diversity: This includes differences in students' life experiences, such as immigration, military service, adoption, or foster care.
- Sexual orientation diversity: This includes differences in students' sexual orientations.
- Geographic diversity: This includes differences in students' local or regional identity and experiences based on where they live, learn, and play.

Diversity in the classroom is not limited to these examples. Individuals can belong to multiple social groups at the same time. Note that diversity is not only about visible differences. Along with the last three categories above, differences in learning styles, personality, mental health, and more are often present without being visible.
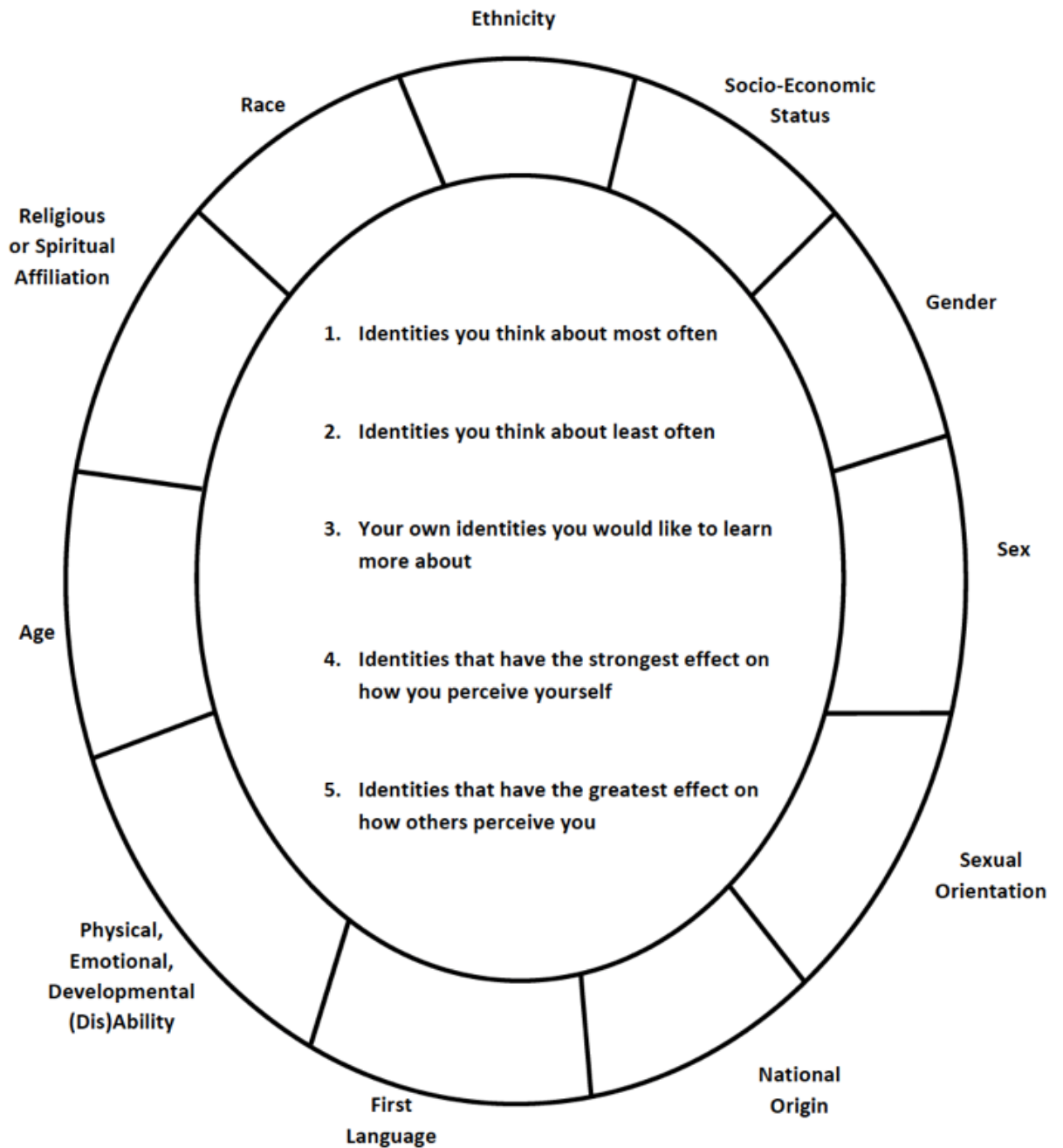
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## ACTIVITIES

| Title | **Active listening** |
|---|---|
| Time | 20 minutes |
| Necessary tools | Chairs for each participant |
| Description | In this activity we want to practice 'listening' and 'not listening' and learn the power of 'active listening'. Ps work in pairs, and they decide who will be the 'talker' and the 'listener' in the first round. The 'talker' selects a genuinely precious, positive life event (e.g. getting married/family event) that they can talk about for 2 minutes.<br><br>The 'listener' needs to find non-verbal ways of 'NOT LISTENING' for 2 minutes, including: sleeping; yawning; getting up and stretching; reading a book; The talker must keep talking for 2 minutes (even if they are sitting alone).<br><br>In the next round Ps repeat exactly the same activity (keeping to the same roles), except this time, the listener will be a 'good listener' and use active listening strategies, including:<br><br>    · Good eye contact, use of expressive eyes;<br>    · Head nodding / head tilting;<br>    · Non-verbal utterances<br>    · Summarising what they've heard;<br><br>In the next round, Ps swap roles and repeat the two rounds.<br><br>The F asks for feedback and sums up the importance of structuring conversations and using active listening to support communication, self-identity, building trust and belonging and inclusivity. |

| Title | **Identity Wheel** |
|---|---|
| Time | 60 minutes |
| Necessary tools | Printed handouts and pens for each participant |
| Description | The Identity Wheel is an activity that fosters parental engagement and child participation in recognizing their social identities and contemplating the different circumstances that make those identities more apparent or profoundly experienced. It also explores how these identities influence the way others perceive or treat them. This activity guides educators to complete the Identity Wheel by specifying various social identities, such as race, gender, sex, ability, disability, sexual orientation, and more. Furthermore, it prompts them to further classify these identities based on which ones hold greater significance in their own self-perception and which ones matter most in how others perceive them.<br><br>Step 1: The facilitator welcomes the class and provides an overview of the activity: students (or teachers as participants at a pilot level) will consider |

their social identities critically, reflecting on how they shape and inform their lives.

The facilitator provides the handout (see below the printable version) and asks participants to do the activity on their own.

In the individual session, each participant should reflect on their identities. Each box on the wheel represents a different facet of identity. Each participant should write in each box of the wheel the number that corresponds with each sentence below, as it relates to a particular identity facet:

1. Identities you think about most often
2. Identities you think about least often
3. Your own identities you would like to learn about
4. Identities that have the strongest effect on how you perceive yourself
5. Identities that have the greatest effect on how others perceive you

Example: if a participant thinks about their ethnicity most often and it is also an identity they would like to learn about, they will enter 1 and 3 into the "ethnicity" text box of the Wheel (provided in Annex 1).

Step 2: Next, in pairs or small groups participants discuss the outcomes using the following reflection questions:

Identity Wheel Reflection Questions

1. Which aspects of your identity did you mark as particularly meaningful to you? Why?
2. Which aspects of your identity did you mark as less meaningful? Why?
3. Why do you think about some aspects of your identity more than others?
4. Which aspects of identity hadn't you thought of before completing this activity?
5. What aspects of your identity do you think are apparent to parents? Which aspects may they not perceive as readily?
6. How do you think your identities impact your interaction with migrant and refugee parents?

Step 3: After the discussion in groups, in plenary the groups give feedback to each other and have a short discussion about the activity.

The activity was inspired by the 'Social Identity Wheel' of the University of Michigan.

Sources: Michigan State University, Center for Service-Learning and Civic Engagement. "Social Identity Wheel." and from the University of Michigan,

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| | |
|---|---|
| | Ann Arbor, College of Literature, Science, and the Arts. "Social Identity Wheel" 2017. |
| Further tips | You may need more time than expected for this activity. In some groups there is a longer discussion, especially about the race category. For the discussion it is important to remind people that even if they consider themselves "colourblind" or totally inclusive e.g. when it comes to gender or religion, all the identity elements can have an impact on how others see them. It is also important to understand that it might not be the identity elements that are the most important for them that have the biggest impact on how others see them. |

*Social Identity Wheel*

M | LSA



Ethnicity

Race

Socio-Economic Status

Religious or Spiritual Affiliation

Gender

1. Identities you think about most often

2. Identities you think about least often

3. Your own identities you would like to learn more about

Sex

4. Identities that have the strongest effect on how you perceive yourself

Age

5. Identities that have the greatest effect on how others perceive you

Sexual Orientation

Physical, Emotional, Developmental (Dis)Ability

First Language

National Origin

Adapted for use by the Program on Intergroup Relations and the Spectrum Center, University of Michigan.

Resource hosted by LSA Inclusive Teaching Initiative, University of Michigan (http://sites.lsa.umich.edu/inclusive-teaching/).

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| Title | **Comfort Zone** |
|---|---|
| Time | 30 minutes |
| Necessary tools | Chalk to draw or rope to form circles |
| Description | Step 1: The F sets up 3 circles using a rope or chalk and explains that the inner circle is our comfort zone where we feel safe and confident, the middle one is the challenge or learning zone where we need to make an effort to be successful, but the stress is doable, and the outer circle is the panic zone where we are often unable to deliver due to too high pressure. Most teachers will be familiar with this. The F reads out the situations one by one and asks Ps to step into the zone according to their preferences, then initiates short conversations with some Ps about how they would deal with it in real life if such a situation came up.<br>General situations:<br><br>- talk to a mass of people<br>- dress a bleeding wound<br>- talk to an angry parent<br>- pet a spider<br>- cooperate with a strict teacher<br>- comfort a crying child<br>- plan a wedding for a hundred people<br>- apply for a scholarship<br>- visit the headmaster's office<br>- make an official complaint<br>- sing publicly<br>- attend the school ball or similar celebration<br><br>Step 2: F reads the specific situations one by one. If there are Ps in the panic zone, F takes note of it.<br>Specific situations:<br><br>- having to speak to a mother who (together with her child) has just learned that her husband was killed in action<br>- go to a mosque to talk to the parents of your Muslim students<br>- being invited to the refugee camp where students you teach and their families live<br>- having to explain to a strongly-built father why their child failed<br>- having to collect newly arrived migrant children's previous school credentials for school administration<br>- deal with a conflict around a compulsory swimming lesson<br><br>Step 3: Next, F asks Ps to work in pairs or small groups, and come up with supportive measures for the panic zone situations (only the Specific ones), and share them with others.<br><br>Step 4: In the last step, F hands out the 'Parent situations' and explains to the Ps that these might be typical 'panic zone' situations for migrant parents. Ps form pairs or small groups, and come up with alternatives that may move the situation to the Learning Zone. |

Parent situations:

- meeting the teacher of your child without having a common language
- enrolling your child in school the week after you arrive in a country
- receiving a letter from the teacher demanding you to visit her in the school
- receiving a letter from the teacher demanding you to visit her in the school during your working hours

Step 5: At the end, participants express their feelings or opinion about the benefits they gained from this activity.

| Title | **Communication channels** |
|---|---|
| Time | 30 minutes |
| Necessary tools | Post-its and pens for all groups |
| Description | Step 1: Ps are working individually or if there are multiple teachers from the same school in pairs. They are asked to create a list of all the communication channels they are currently using with parents, write every channel on a single post-it, and stick it on the wall or a board. Duration: 10 minutes

Step2: F reads out the different channels listed, removes duplicates, and randomly hands out an even number of channels to the pairs or individuals. Their task is to list the pro and contra arguments for using that channel, with a specific focus on their effectiveness with migrant parents. Duration: 10 minutes.

Step3: Ps present their arguments, plenary discussion follows. If there is no used channel identified as suitable with migrant and refugee parents, participants can brainstorm for appropriate ones. Duration: 10 minutes. |

| Title | **Avoid using jargon** |
|---|---|
| Time | 30 minutes |
| Necessary tools | Printed texts (see printable versions below) |
| Description | One major obstacle to successful parental engagement and child participation is that professionals often use jargon. To understand the challenge with it, Ps are asked to read the following paragraphs and give a summary of what they have read (if their mother tongue is not English, similar texts should be provided in their mother tongue).

As a second step, understanding the difficulty of decoding jargon, they are asked to rewrite a paragraph (see text below) for people without an education science background. |

"Vascular spasm, also called vasoconstriction, is the initial response to the injury that induces systole of smooth muscle [1]. Formation of platelet plug is the following process of vascular spasm after exposed to collagen, forming plugs to block the gap and minimize the bleeding in the damaged vessel. The crucial process in hemostasis will be blood clotting, which is playing the transformation role of blood state from liquid to solid by the assistance of clotting factors. There are about 30 types of interacting proteins engaged in this process, leading to the formation of a hemostatic plug after injury. In the formation of prothrombin, two pathways are involved and named as intrinsic and extrinsic pathways, highly connected to generate the factor Xa"

–https://doi.org/10.1016/j.biopha.2016.09.057

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"Centrifugal pumps are good for low viscosity sludge with very little solids. This type of pump will generate far less pulsation than the positive displacement pumps that make up the remainder of this list. The AOD pump is good for producing a consistent sludge blanket for more consistent percent solids sludge. AOD pumps have high pulsation rates, however. Rotary lobe pumps are great for high viscosity fluids. Like the progressive cavity, there is low shear and low pulsation. They have a small footprint and easy to access the wetted parts through the cover plate in front of the pump."

– source Crane Engineering

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"Competence-based learning empowers learners to understand the competences they need to master to achieve their goals, progress through learning processes without time constraints, explore diverse learning opportunities, collaborate in learning activities with communities of peers and mentors, create learning artifacts that represent their competences, reflect on their own learning achievements and see what they've mastered, what they still need to accomplish, and where to improve."

- Paragraph adapted from https://blog.blackboard.com/3-key-characteristics-of-competency-based-learning/)

**Further reading**

The Culture Map: Breaking Through the Invisible Boundaries of Global Business by Erin Meyer
https://www.goodreads.com/book/show/22085568-the-culture-map

Moral Tribes: Emotion, Reason, and the Gap Between Us and Them by Joshua D. Greene
https://www.goodreads.com/book/show/17707599-moral-tribes

**Online learning options**

Cultural diversity in your classroom
https://www.schooleducationgateway.eu/en/pub/teacher_academy/catalogue/detail.cfm?sid=32879

## 3. The whole school approach and open schooling

### KNOWLEDGE BASE

The Berlin Declaration on Education for Sustainable Development[13] identifies a whole school and whole community approach to education as a prerequisite to delivering on the promise of sustainability. It calls stakeholders to "promote a whole-institution approach, recognizing that learners and the school community become meaningfully engaged in sustainable development through democratic participation when their institutions become living laboratories for participation and active citizenship, equity and gender equality, health, connections with nature and respect for the environment, energy efficiency and sustainable consumption, and where learning is experiential, action-oriented, localized and culturally specific, allowing learners to learn what they live and live what they learn."

The Working Group on Schools prioritised early school leaving in 2014–15 and created policy recommendations in that field. It is the first major EU policy document that defines the whole school approach as an open approach to school: "The school is seen as a multidimensional and interactive system that can learn and change; an open learning hub which provides support to its neighbourhood and receives support from the community… [It] also implies a cross-sectoral approach and stronger cooperation with a wide range of stakeholders (social services, youth services, outreach care workers, psychologists, nurses, speech and language therapists, guidance specialists, local authorities, NGOs, business, unions, volunteers, etc.) and the community at large, to deal with issues, which schools do not (and cannot) have the relevant expertise for. The concept of a 'whole school approach' allows for the entire system of actors and their inter-relationships in and around schools to be considered, acknowledging that each stakeholder has a part to play in supporting the learners' educational journey and nurturing their learning experience." This policy also calls for the involvement of all relevant local stakeholders in decision making and governance procedures.

The same Working Group focused on governance of school education systems and also called for involving all relevant stakeholders to be involved in decision making from policy to school level. The WG has defined schools as learning organisations that "do not exist in isolation; they are linked and embedded within a learning system". One of the thematic areas of policy development identified was "networks for learning and development across school education systems: a deeper understanding of the purpose and nature of networks for innovation and implementation, and the participation of stakeholders at different levels of the system." They identified such networks suitable for addressing and potentially solving problems concerning the education of young people in collaborative and flexible ways as well as important sites of co-responsibility and shared accountability.

Open schooling is a related term to the whole school approach. Open learning and open schooling are broad terms which describe learning which is 'open' in terms of timing, location, teaching roles, instructional methods, modes of access, and any other factors related to learning processes. Most schools already do some level of open learning, through off site trips, on site visits and remote learning.

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[13] https://en.unesco.org/sites/default/files/esdfor2030-berlin-declaration-en.pdf

## ACTIVITIES

| Title | **Is it open schooling?** |
|---|---|
| Time | 15 minutes |
| Necessary tools | Projector or handouts |
| Description | The following situations (see printable version below) are projected or handed out on prints and Ps are asked to vote whether the activities are open schooling or not. If not, F always explains, why not (not regular or not linked to the curriculum).<br><br>The solution are provided here for F.<br><br>The school invites an alumnus to make a presentation in class – no<br><br>The literature classes in November are held in the library - yes<br><br>The school and the local environmental protection agency organise an event to clean the local beach – no<br><br>The very talented children are taken to a different school for their math classes – yes<br><br>Parents of refugee children volunteer at class as pedagogical assistants – yes<br><br>A group of children would like to learn programming and one parent from the school offers them lessons at his company's premises – yes<br><br>As a second step, Ps are asked to brainstorm e.g. how inviting alumni can be open schooling and what collaboration with the local NGO would be transformed to an open schooling one. |

| Decide if the following activities are open schooling: | YES/ NO |
|---|---|
| The school invites an alumnus to make a presentation in class. | |
| The literature classes in November are held in the library. | |
| The school and the local environmental protection agency organise an event to clean the local beach. | |
| The very talented children are taken to a different school for their math classes. | |
| Parents of refugee children volunteer at class as pedagogical assistants. | |
| A group of children would like to learn programming and one parent from the school offers them lessons at his company's premises. | |

| Title | **Map your open schooling practices** |
|---|---|
| Time | 30 minutes |
| Necessary tools | Sheets of paper, pens, printed situation cards |
| Description | Step 1: Ps are asked to list all activities in their professional life that they consider open schooling.<br><br>Step 2: Ps form small groups, and discuss which ones are and which ones aren't really that.<br><br>Step3: Each group is given one of the following situations (see printable version below) and asked to design an open schooling activity for them:<br><br>      - Learning about gravity<br>      - Learning about a local historical figure<br>      - Preparing for the winter festivities<br>      - English language class |

| |
|---|
| LEARNING ABOUT A LOCAL HISTORICAL FIGURE |
| PREPARING FOR THE WINTER FESTIVITIES |
| LEARNING ABOUT GRAVITY |
| ENGLISH LANGUAGE CLASS |

Deliverable 2.1: Train the Trainer Manual – Engaging stakeholders, especially parents and students. at various governance levels

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| Title | **Build your ideal open school** |
|---|---|
| Time | 60 minutes |
| Necessary tools | Various types of material: LEGO bricks, recyclable material such as yoghurt cups, paper, paper clips, etc, scissors, tapes |
| Description | Ps form small groups and asked to build their ideal open school with the materials they choose. Once the building is ready, a gallery walk is done and each group presents their building.<br><br>After the gallery walk groups can reflect on the building process (how they designed, what roles they had, how they decided on materials, how the building process happened, etc.). If there is time, they can discuss what is already there in their school, what would be easy to implement and what would be difficult/impossible. |

| Title | **World Café** |
|---|---|
| Time | 60 minutes |
| Necessary tools | 4 tables, chairs for each P, large sheets of paper, colour markers |
| Description | See description of the World Café method on p. 28.<br><br>Questions to discuss at separate tables:<br><br>What activities would be done best in your work in an open schooling format?<br><br>What legal barriers are there for open schooling? What legislative changes are necessary?<br><br>What non-legislative challenges are there for open schooling?<br><br>Who can be engaged in open schooling in your context? |

**Further reading**

The Drivers: Transforming Learning for Students, Schools, and Systems by Michael Fullan and Joanne Quinn

Open Schooling ideas for STEM https://www.connect-science.net

Understanding Knowledge as a Commons edited by Charlotte Hess and Elinor Ostrom https://www.goodreads.com/book/show/817680.Understanding_Knowledge_As_a_Commons

**Online learning options**

Make It Open online course https://www.europeanschoolnetacademy.eu/courses/course-v1:MiO+OpenSchooling+2023/about

Whole school approach and open schooling https://microvet-vle.eu/course/view.php?id=33

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## 4. Universal design and student-centred teaching methods

### KNOWLEDGE BASE

**Universal Design for Learning**

Universal Design for Learning (UDL) is a framework to improve and optimise teaching and learning for all people based on scientific insights into how humans learn.
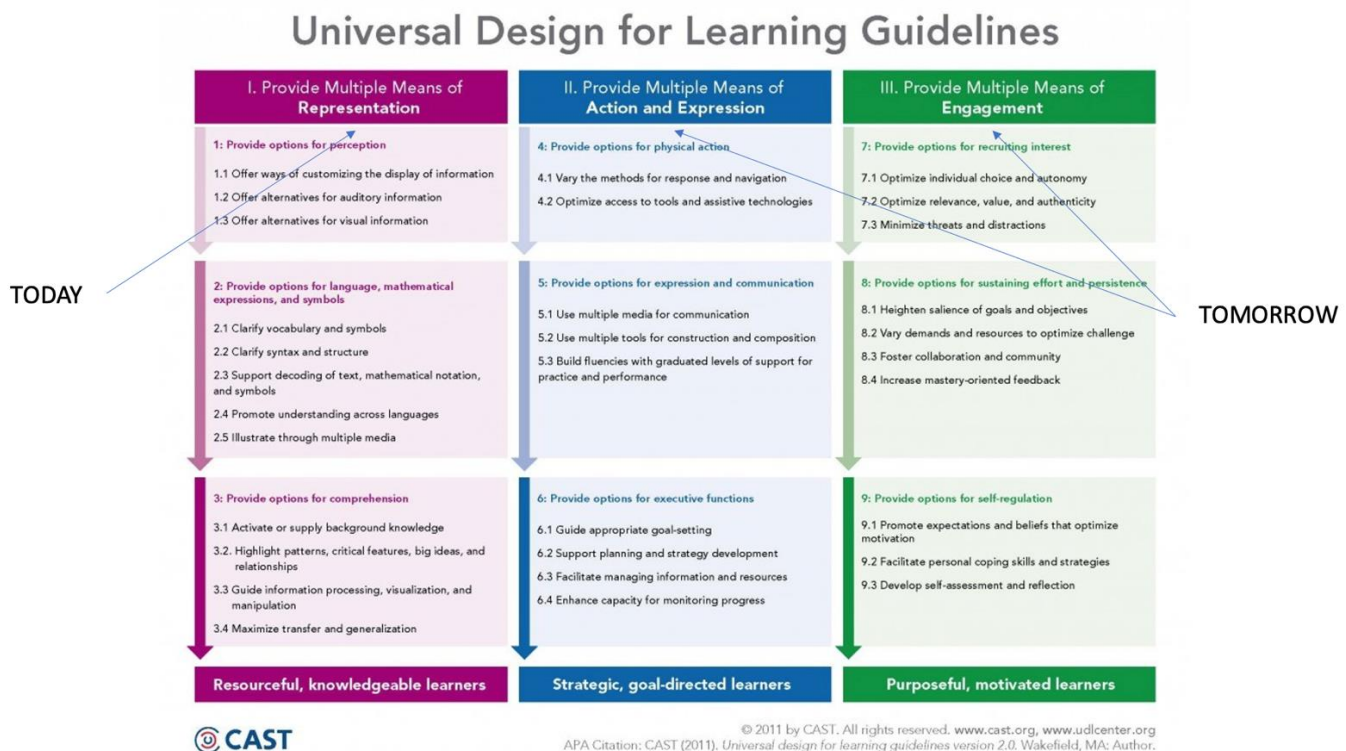


For higher resolution of the image see https://udlguidelines.cast.org/

**Student-centred teaching**

It is not only important to engage children in the planning and evaluation of innovative new programmes at school, but it is necessary if we want to have children as active participants in the classroom. There are various student-centred methods that can be suitable for bioeconomy programmes. The first choice for many would be **project-based learning**, but it may not be suitable for every student, but also not for every teacher. A few other methods, chosen for their participatory nature are introduced below (however, it is important to mention that for some students the suitable student-centred method can be different, and might even be individual discovery). From the teacher's perspective, it is important to make conscious decisions. No teacher will be authentic using new methods if they don't believe in the given method or do not feel comfortable learning using that method. The GOGYA Teacher Training Centre in Israel introduced these methods with a training approach that includes the teachers trying them out and then using only the methods they enjoyed

Deliverable 2.1: Train the Trainer Manual – Engaging stakeholders, especially parents and students. at various governance levels

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with their students. It also includes incentives for schools to make it possible for students to choose which teacher – and subsequently which methods – they think they can learn best with.

For identifying and tackling local challenges both **inquiry-based learning** and **problem-based learning** can be useful.

**Problem-based learning** flips the traditional approach to school learning by making the students identify what needs to be known rather than pre-defining it. In problem-based learning, students use "triggers" from the problem case or scenario to define their own learning objectives. Subsequently, they do independent, self-directed study before returning to the group to discuss and refine their acquired knowledge. Thus, this method is not about problem solving per se, but rather it uses appropriate problems to increase knowledge and understanding. The process is clearly defined, and the several variations that exist all follow a similar series of steps.

The most common approach to it is the Maastricht seven-jump process that clearly defines PBL as a combination of individual and group learning, and is usually used in groups of 10 to 15 students.

The seven steps are:

1. discuss the case and make sure everyone understands the problem,

2. identify the questions that need to be answered to shed light on the case,

3. brainstorm what the group already knows and identify potential solutions,

4. analyse and structure the results of the brainstorming session,

5. formulate learning objectives for the knowledge that is still lacking,

6. do independent study, individually or in smaller groups: read articles or books, follow tutorials, watch videos or use other, trusted sources to gain the required knowledge,

7. discuss the findings.

**Inquiry-based learning**

Inquiry-based learning takes a further step in student independence by offering students the possibility to identify the problem themselves and design an exploratory route of inquiry to refine their problem and find solutions for that themselves. This methodology is especially suitable for digitally supported activities that allow the inquiry process to be supported by digital learning environments. While the method is often used in science subjects due to its roots in scientific research, it is also suitable for humanities or arts discovery. It is often organised into inquiry phases that together form an inquiry cycle. However, different variations on what is called the inquiry cycle can be found throughout the literature.

In inquiry-based approaches implemented in the classroom, students generally follow methods and practices similar to those of professional scientists in order to construct knowledge. It can be defined as a process of discovering new causal relations, with the learner formulating hypotheses and testing them by conducting experiments and/or making observations. Often it is viewed as an approach to solving problems and involves the application of several problem-solving skills. Inquiry-based learning emphasises active participation and learner's responsibility for discovering knowledge that is new to

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the learner. In this process, students often carry out a self-directed, partly inductive and partly deductive learning process by doing experiments to investigate the relations for at least one set of dependent and independent variables.

**Project-based learning** is probably the most widely known and used, complex student-centred methodology. Students work on a project over an extended period of time – from a week up to a semester – that engages them in solving a real-world problem or answering a complex question. They demonstrate their knowledge and skills by creating a public product or presentation for a real audience. The creation of a final product is that makes it different from inquiry-based learning.

As a result, students develop deep content knowledge as well as critical thinking, collaboration, creativity, and communication skills. If managed well, project-based learning has the potential to boost creative energy among students and teachers.

Experiential learning can be very suitable for programmes that are linked to local challenges as it not only focuses on the topic and the learning outcomes, but also the experiences students have during the learning journey, including their emotions – a very important element especially for environmental topics that can be traumatising for them.

The last methods introduced here are ones that are often confused, even in publications: playful learning, game-based learning and gamification.

There are several definitions and frameworks for **playful learning**, the one used in this publication is the one established by scholars at the LEGO Foundation[14], and is defined as serious play. While most scholars have done research on the benefits of serious play in early childhood, recent studies have also emphasised its benefits for older children and adults, thus making it an approach to consider in all stages of lifelong learning. This is partially rooted in the concept of Csíkszentmihályi's flow[15] and positive psychology. This concept establishes the ideal state for learning as a situation that is challenging, but not overchallenging for the individual, and offering meaningful learning moments.

The framework used in this publication also emphasises the socially interactive nature of this methodology. It has several characteristics that make it similar or related to previously introduced methods. The theoretically interesting element of it is that it highlights the importance of iteration, thus celebrating trial and error, a feature often missing from the school context. Another element that builds further on the previously introduced methodologies, especially experiential learning, is that it does not only emphasise the importance of the feelings of learners during the learning process, but explicitly requires the experience to be joyful. This joy, as Csíkszentmihályi establishes, comes from the satisfaction of achievement, so it is not necessarily "fun" or "humour", but joy in a broad sense: as pleasure, enjoyment, motivation, thrill, and a positive emotion – whether over a short period of time or over the entire play session. In other words, joy is seen as both enjoying a task for its own sake and the momentary thrill of surprise, insight, or success after overcoming challenges.

The concept is built on the fact that children naturally learn through play, and offers a framework to keep this in later stages and more formal environments of education. It offers a broad framework that

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[14] Learning Through Play: A Review of Evidence – White paper (2017). LEGO Foundation, Billund
[15] https://www.sciencedirect.com/topics/psychology/flow-theory

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can be implemented in any subject-context, and puts an emphasis on developing life skills as a first step and as a basis for curricular learning.

**Gamification** is not game-based learning, although gamified solutions often use games as a vehicle of learning. It builds on successful principles of (primarily computer) games to make learning more interesting, but not necessarily involves an actual game or digital technology. It is aiming at students being more motivated, having a deeper engagement with curricular learning, being genuinely interested and applying learning in real life environments.

Building on principles previously quoted about playful learning, the approach is based on the gratification players feel in computer games. It is based on experiences of millions of gamers who spend long periods of times in their games online. What is important for this pedagogical approach is the so-called epic win (perhaps it could be translated as cathartic success): difficult problems during games the gamer has to solve, they need to think hard, dedicate all available resources to it – and if they do, in the end success crowns their efforts. Cathartic success is something that really took a lot of effort to reach in the game, at first it seemed even impossible to achieve, but still succeeded. As a teacher this is exactly what you want to achieve – not just students solving tasks based on teacher instruction, bored and disinterested, but also heat them from within with the desire to solve the tasks. Who has played any game knows the feeling, e.g. like when, after 80 minutes of play, you manage to equalise in a football match: the fatigue disappears and the goal scorer is able to run out to the spectators impossibly quickly. This is the feeling that you can take it forward, and it also encourages the student to make an extra effort.
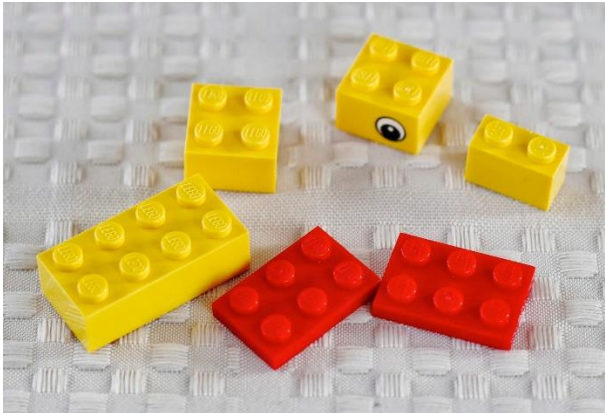
Gamified assessment methods, based on awards and no punishments are an especially useful method for motivation, helping students to focus on their weaker points, and achieving learning goals. This is an element – offline or online – that can be introduced easily and independently from introducing other elements of gamification.

**Game-based learning**, in contrast, involves designing learning activities so that game characteristics and game principles inhere within the learning activities themselves. Educational games are games explicitly designed with educational purposes, but game-based learning can also mean the use of games that have incidental or secondary educational value. All types of games may be used in an educational environment, however educational games are games that are designed to help people learn about certain subjects, expand concepts, reinforce development, understand a historical event or culture, or assist them in learning a skill as they play. Game types include board, card, and video games. For example, in an Economics course, students might compete in a virtual stock-trading competition; in a Political Science course, students might role-play as they engage in mock negotiations involving a labour dispute.
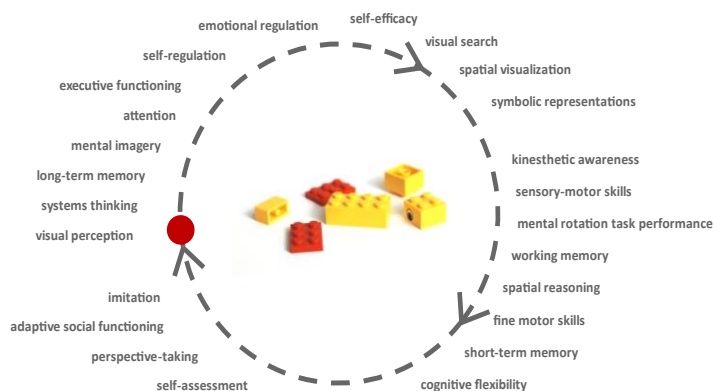
In short, gamification applies game elements or a game framework to existing learning activities; game-based learning designs learning activities that are intrinsically game-like.

## ACTIVITIES

| Title | **This is not a tea ball** |
|---|---|
| Time | 10 minutes |
| Necessary tools | Tea ball |
| Description | Ps sit in a circle. They pass around a tea ball, saying: This is not a tea ball, but… Each P has to say something different, using their imagination. 5-6 rounds can be managed. |

| Title | **LEGO duck activity** |
|---|---|
| Time | 20 minutes |
| Necessary tools | 6-pack of LEGO bricks for each P |
| Description | Before Ps open the package, they are instructed to build a duck in 20 seconds. The F measures time and prompts when they only have 10 and 5 seconds left. |
| |  |
| | Ps are asked the compare their ducks. They will realise that there are different solutions that are all good. |
| | The F shows the following graphics to discuss what kind of learning has happened in the 20 seconds. |

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## What happened?



Source: LEGO Foundation

Ps are asked to reflect on how this simple activity can be used to promote playful learning.

| Title | **Mapping your student-centred methods** |
|---|---|
| Time | 30 minutes |
| Necessary tools | Sheets of paper and pen for each P |
| Description | Ps are asked to list 5 types of activities they do in the classroom that use student-centred methods. Then they form pairs and they introduce these to each other.<br><br>Working in pairs they list another 5 that are traditional, teacher-centred in methods, and they design student-centred alternatives. |

| Title | **Student-centres activities planning** |
|---|---|
| Time | 60 minutes |
| Necessary tools | Two stacks of cards (see printable version below) |
| Description | Ps are asked to choose from 2 stacks of cards, one with the various student-centred methods and one with various bioeconomy topics. In pairs or small groups, they are asked to design a school activity on it using the randomly selected methods.<br><br>Detailed discussion follows. The F checks if the method and the topic are understood well. |

| PROJECT-BASED LEARNING | INTERCONNECTEDNESS |
|---|---|
| PROBLEM-BASED LEARNING | OUTDOOR LEARNING |
| INQUIRY-BASED LEARNING | FOOD LOOP |
| PLAYFUL LEARNING | FORESTRY |
| GAMIFICATION | LIFE BELOW WATER |

Deliverable 2.1: Train the Trainer Manual – Engaging stakeholders, especially parents and students. at various governance levels

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| Title | **Universal planning** |
|---|---|
| Time | 30 minutes |
| Necessary tools | Sheets of paper and pens for each P |
| Description | Implementing the principles of UDL, Ps are asked to plan an activity in small groups on local food to cater for the diverse needs of students. Presentation and discussion follow. |

**Further reading**

Learning through play: a review of the evidence
https://cms.learningthroughplay.com/media/wmtlmbe0/learning-through-play_web.pdf

Creative Schools by Ken Robinson https://www.goodreads.com/book/show/23398899-creative-schools

Equity by Design: Delivering on the Power and Promise of UDL by Mirko Chardin and Katie R. Novak https://www.goodreads.com/book/show/52022696-equity-by-design

**Online learning options**

Student-to-student peer support methods https://microvet-vle.eu/course/view.php?id=30

Learning leadership https://microvet-vle.eu/course/view.php?id=32

CAST courses on UDL
https://www.cast.org/search/Page+Type/aem_x003a_eventdocument?sortby=date

# 5. Shared leadership at different governance levels

## KNOWLEDGE BASE

Shared leadership usually refers to a decision-making approach driven by collaboration between teachers, the school head, and other school leaders. Our approach broadens this notion to include parents and students.

There is a need to mention two factors beyond teachers in establishing parental engagement and child participation practices and finding solutions for the need to change schools: legislation and its implementation.

Legislative frameworks – in an ideal case created with the participation of all main stakeholder groups - should be in place that makes it necessary for schools to engage parents and also the students themselves in all procedures. There are countries that regulate student and parent representation in main decision-making bodies, such as school boards. Other systems oblige the school to seek the opinion of parents (and students) and in certain topics (e.g. choice of school books, time of holidays, election of school head) the school's decision is not valid without such an opinion. Some countries give parents (and students) veto rights in certain areas.

This in itself will not ensure meaningful participation. Extensive research done in 23 European countries on participation[16] clearly uncovered a pattern that it only provides for structures and thus participation is often restricted to formalities. This is a dangerous trend as schools that only wish to tick the boxes will find ways to involve 'tame' parents, resulting in representation of white middle class only in decision-making structures.

This is the reason why the other important factor is the school leader/principal in implementing inclusive participatory structures at school level. Research[17] shows that there is no school system in Europe that forbids school leaders to engage parents and students, so inclusive participatory practices can be implemented even in systems where there is no legislative requirement for that. An equally important task for school leaders is to change existing practices in school boards, parent committees and similar structures to provide engagement opportunities for all students and teachers. It depends on the school leader most of all if existing formal structures become meaningful or not. For a short period of time the driving force behind such changes can be a small group of committed parents, but for lasting changes the school leader needs to take a lead in this field, too. According to recent research[18] school heads understand the importance of collaborating with parents and engaging students, but they have little professional help in doing so. Ken Robinson in his 2018 book *You, Your Child and School* provides inspiring practices, mostly from the United States, but he also makes it clear that there are no recipes, local solutions must be found understanding the context of that given school, and thus it is the task of the school leader.

Parental engagement and student participation are practical examples of active citizenship, and a perfect training field for present and future active national or global citizens, where they can experience and experiment at a low-risk environment. Teachers also need to look at engagement as

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[16] Salamon – Haider, 2015
[17] Salamon – Haider, 2015
[18] Kelly, 2019 and Salamon, 2019

Deliverable 2.1: Train the Trainer Manual – Engaging stakeholders, especially parents and students. at various governance levels

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an active citizenship practice and support their students and their parents in it. Often, teachers need to approach their own active citizenship as a field where they need more conscious approaches and even training. In short, teachers also need to be active citizens of their own school. Parent-teacher-student collaboration is also a good opportunity to experience the impact of non-participation opting out, but also to learn that active citizenship includes active bystandership. Thus, parent engagement and student participation are very closely linked with citizenship education – and this link needs to be made clearly for all.

Shared leadership also means shared responsibility. Thus, collaboration is essential and it needs to be accompanied by adequate support measures. While even professional educators may find it difficult to become a decision maker, there is a need to ensure that parents from all walks of life and students of all ages are empowered to participate. In the case of parents, it means that the school head is responsible for providing information in plain language (even another language if necessary) and to ensure that time constraints are not hindering participation, so there is a need to map the availability of parents. In the case of children, it is important to ensure age-appropriate methods in order to avoid students becoming "decoration" (see the Ladder of Participation in Module 1).

One of the most important skills for successful shared leadership is conflict management. The art of compromise is essential for all parties to succeed.

## ACTIVITIES

| Title | **Save the egg** |
|---|---|
| Time | 20 minutes |
| Necessary tools | A packet of tissue papers (100 pieces), two permanent pens, a box of plasticine, a packet of straws, sellotape |
| Description | Ps form groups of 3-4 people. Each group gets an egg. They have to decide what the most precious thing is in the world. F shows them the tools. Ps of each group has their task: time keeper, tool manager, encourager, architect (see printable roles below, print enough for each group). F encourages discussion of what these tasks mean. First, they are given 2 minutes to work out a strategy on how they will protect their egg. F tells them that after wrapping their egg, F will drop it (e.g. from the first floor). The tool managers can grab whatever they can (it is good if they realise that they must share, as there are not enough tools for each group). The groups write the name of the most precious thing on their egg and then try to wrap it. Meanwhile, each P must pay attention to their individual role. F drops the eggs and together they celebrate if any of the eggs are saved. In the final discussion Ps are asked to comment on how well they could fulfil their roles. |

| TIME KEEPER |
| --- |
| TOOL MANAGER |
| ENCOURAGER |
| ARCHITECT |

| Title | **Take responsibility** |
|---|---|
| Time | 20 minutes |
| Necessary tools | Coin, cap, chairs for each P |
| Description | Ps sit in two rows of chairs with their backs to each other. The people sitting in the same row hold hands and they all close their eyes, except the first person in each row. At the end of the rows there is a chair in the middle with a cap on it. F stands in front of the rows and flips a coin. F shows the coin to the first persons. If it is tails, nothing happens. If it is heads, the first persons in each row squeeze the hand of the second persons. They pass the squeeze along the row to the last person who sits next to the chair with the cap. The quicker they pass the squeeze along the row, the more chance they have that the last person in their row can grab the cap first. If one team gets the cap, they all change places: the first person takes the second place, the last person in the row becomes the first person. The two teams compete. If the first person sends a false alarm (because it was tails, and they should not have started the squeeze), the other team gets the point and they can move one person forward. |
| Further tips | If the number of Ps is not even, one person can be appointed to be High Judge, making sure that nobody cheats and deciding who was the quicker if they both grab the cap. |

| Title | **Conflict management** |
|---|---|
| Time | 30 minutes |
| Necessary tools | Printed questionnaire for each P |
| Description | Step1: Participants work in pairs. Using the first part of the questionnaire (see printable version below), they interview each other in 5 minutes.

Step2: After 5 minutes one of each pair stands up and swaps places with another standing person. People share the outcomes of their interviews with a member of another pair using the discussion questions in the second part of the questionnaire.

Step3: Participants come together in groups of 4 and discuss the questions in the third part of the questionnaire.

Step4: To wrap up, each group comes up with 2 potential positive outcomes of conflict, the facilitator lists them on a flipchart paper on the wall. |

| |
|---|
| I. 1.    How do you define conflict? |
| I. 2.    What is your typical response to conflict? |
| I. 3.    What is your greatest strength when dealing with conflict? |
| I. 4.    If you could change one thing about the way you handle conflict, what would it be? Why? |
| I. 5.    What is the most important outcome of conflict? |

| |
|---|
| II. 1. Were your partner's perspectives different from your perspective? |
| II. 2. What were some things you learned by considering another's perspective? |
| II. 3. Does discussing conflict like this makes it "less scary"? In what ways? |
| II. 4. Is conflict good or bad? |
| II. 5. What are some ways in which conflict is detrimental to the team? |
| II. 6. What are some ways in which conflict enriches the team? |

| |
|---|
| III. 1. How does the definition of conflict affect the way we think about conflict? |
| III. 2. What are some negative consequences of conflict? |
| III. 3 What are some positive outcomes of conflict? |

Deliverable 2.1: Train the Trainer Manual – Engaging stakeholders, especially parents and students. at various governance levels

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| Title | **Supporting inclusion in leadership** |
|---|---|
| Time | 60 minutes |
| Necessary tools | Cards (see printable version below) |
| Description | All Ps choose a personality card. If you have more than 10 participants, print more than one copies and cut them up before the training. Ps have to read their own cards and hide it from the others. |
| | Ps stand in a row, and the F asks them to take one step forward if the following statements are true for their personas. The game can also be played without the persona cards, asking Ps if the statements were true for them when they were children: |

a. You have the feeling that your religion and language are accepted at school. You feel comfortable at school.
b. Activities that require your personal presence at school are at times that you find easy to manage and you can attend.
c. You have never felt marginalised by others.
d. The school leader always welcomes your ideas.
e. You have the feeling that your knowledge and skills are recognised in school.
f. You can afford all the school materials you/your child need for school (exercise books, pens, books, …).
g. You have many opportunities to pursue your hobbies.
h. You have never been insulted or excluded by other children or teachers because of your skin colour, gender or other external characteristics.
i. Your parents have never been in serious financial difficulties.
j. You have the impression that you can improve your social status if you work hard.
k. In the school canteen, your/your child's personal background is taken into account (e.g. allergies, etc.).
l. Work instructions at school are/were easy to understand for you.
m. At school there is no possibility to use translation tools to re-read words in the language of instruction. This is not a problem for you.
n. You can participate in all school activities despite your origin, gender or religion.

After the last statement, participants compare their place in the room without moving away from the spot they have. If people with the same personas are at different places, they discuss the reason. Highlight that even teachers may not feel themselves included enough.

As a last step, participants work in pairs with one persona, and design one intervention that would solve at least one of the challenges found

**SCHOOL HEAD**

JAN
54-year-old, History
teacher for 20 years,
then school head of a
secondary school for
10 years

**SCHOOL CARETAKER**

AHMED
38-year-old, migrant,
university degree from
home country

**PARENT**

SOFIA
35-year-old single mother
of two (aged 3 and 7)
unemployed, no higher
education

**PARENT**

PETER
42-year-old father of four,
engineer

**TEACHER**

MARK
32-year-old secondary
school English teacher

**STUDENT**

ANNA
16-year-old girl interested
in languages and social
sciences

**STUDENT**

FRANK
13-year-old boy
interested in Maths and
computers

**SCHOOL HEAD**

EMMA
39-year-old, Maths
teacher for 13 years,
then school head of an
elementary school for
2 years

**SCHOOL SECRETARY**

HELEN
52-year-old, college
degree

**TEACHER**

MARIA
48-year-old elementary
school Music teacher

**Further reading ideas**

The Principal 2.0 by Michael Fullan https://www.goodreads.com/book/show/62131671-the-principal-2-0

How Principals Contribute to Student Success edited by Kenneth Leithwood, Jingping Sun and Katina Pollock https://www.goodreads.com/book/show/38746329-how-school-leaders-contribute-to-student-success

Flip the System edited by Jelmer Evers and René Kneyber https://www.goodreads.com/book/show/26271549-flip-the-system

**Online learning options**

Leadership and Management in Education https://www.edx.org/certificates/professional-certificate/newcastlex-educational-leadership-and-management

## 6. Advocacy

### KNOWLEDGE BASE

The implementation of bioeconomy education with the engagement of parents and students requires a process of institutional learning and a fundamental change in how schools are perceived by various stakeholders. In order to get their commitment, evidence needs to be based on authentic first-hand insight into well proven practices, as well as on a thorough analysis of policies and structures which are relevant for the school sector. This is especially true when advocating for non-formal education providers to play a crucial role in such collaborations.

The following definition of advocacy has been used as a starting point:

(Policy) advocacy is the process of negotiating and mediating a dialogue through which influential networks, opinion leaders, and, ultimately, decision makers take ownership of your ideas, evidence, and proposals, and subsequently act upon them[19].

Anyone can be an advocate, all it takes is to want to achieve change in society in general, but more typically in a specific field or area. Rigid education systems have often been difficult to steer to meet the needs of students in all countries of the world, but it doesn't mean that you need to accept it. Advocacy is a way to fight for change by offering better alternatives to decision makers.

It is not enough to have strong arguments, and well working evidence-based methods, you will also need to find a way to reach the decision makers, and convince them to act. Sustainable policy and practice change takes time and likely to not happen immediately. In the case of bioeconomy education, long-established practices need to change.

**Analysing the policy environment**

When designing advocacy work at your own level, it is of utmost importance to understand the policy environment to understand:

- The enabler in policy that might be utilised
- The boundaries set by policy
- European and international policy recommendations that can be used to change policy in the immediate environment
- To see any discrepancies between legislative strands, especially the (mis)alignment of education/open schooling policies and international treaties ratified by the country

Recognition of this approach should not burden families financially.

**Analysing the education environment**

The other crucial element of preparation is the analysis of the local education environment you wish to influence with your advocacy efforts, namely

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[19] Young – Quinn, 2012

- to identify the influential networks, opinion leaders and decision-makers mentioned in the definition of advocacy, and
- to identify local conditions relevant in advocacy

**Stakeholder identification and analysis**

One of the greatest challenges to advocacy activities is identifying and understanding the target audiences. At the planning stage you need to consider that policy and decisions in general are made by people, not institutions. Therefore, advocacy activities must be targeted at individuals. Successful advocates carefully analyse their target audience to ensure their efforts and resources are directed in the most efficient manner.

When making the first steps in identifying and understanding the target audience, it might be useful to create a distinction between primary and secondary audiences. In other words, advocates need to answer the questions:

- Who has the authority to make the changes that need to be made? and
- Who influences them?

The primary audience includes decision makers with the authority to directly affect the outcome of the advocacy goal – be it policy change or other crucially important factors like funding. These are individuals, for example, who must approve a change of legislation. The secondary audiences are individuals and groups that can influence these decision makers. The opinion and actions of latter group of individuals are important in achieving the advocacy objectives, since they have the potential to affect the opinions and actions of the decision makers – both as supporters or adversaries. However, in open schooling, it is rare to experience real opposition. However, there can be fear and reluctance, mostly due to a lack of experience and/or information.

**Local conditions for advocacy**

It has already been established that advocacy is targeting people, not institutions. Similarly, you usually wish to target your advocacy work to a limited local context. Global advocacy is more or less impossible, and given that you are advocating on the level of individuals within a target group, the more specific your context is, the easier to plan advocacy. In simpler terms, you need to explore and understand the local context for bioeconomy education. There might be similar situations in different local contexts, but the closer you focus, the more solid points you can find for your advocacy.

In the case of bioeconomy, this local approach is even more important. Every context is different with regards to demographics, student needs, accessibility challenges, but also the open schooling options available (and physically reachable) and motivated local stakeholders.

## ACTIVITIES

| Title | **Stakeholder mapping** |
|---|---|
| Time | 20 minutes |
| Necessary tools | Stakeholder map printed or projected (see below), post-its, pens |
| Description | Ps form pairs and identify all stakeholders that have any role in making decisions with regard to introducing bioeconomy education in their school context with parental |

engagement and child participation. They use the stakeholder map model to group the different groups in the various quadrants. The model can be printed for each pair of Ps or projected.



**Stakeholder Map: Who Needs What?**

For each target group (and in the case of very influential people e.g. a minister or mayor, each target) Ps can make decisions on which quadrant they belong to and what tools can be used for engaging them answering a few simple questions:

1.      What do they know about bioeconomy education in your context?
If you provide too basic information, that may be redundant and you lose their interest. If you do not ensure a common ground, it can cause problems later on.
2.      What beliefs may influence them in supporting your goal?
How do they see the goal of schools? Do they see the benefits of student-centred methods? Do they believe in shared leadership? Do they like to control things? Do they truly support child rights? Do they know the limits of the schools' responsibility? – you can ask these questions and similar ones here.
3.      What personal interests can have an impact on their support?
Do they have children who may participate? Are they up for re-election? Could it offer media coverage for them? and similar factors can have major influence
4.      What can be the impact of their support on your goals?
It is important to understand how their direct support can help you in implementing your bioeconomy education programme and the role of parents and students in it, but it is equally important to see what might be the impact of their not doing anything or directly acting against your goals.

Ps work in pairs and compare their maps. If there are major differences, they need to discuss the reason (for two pairs putting the same stakeholder group in different quadrants). Is there anybody missing?

# Stakeholder Map: Who Needs What?

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| Title | **SWOT analysis** |
|---|---|
| Time | 30 minutes |
| Necessary tools | Image printed or projected (see below), post-its, pens |
| Description | This activity is for mapping local conditions for advocacy. Ps work in 4 groups, each group mapping one quadrant. SWOT analysis is a simple and well-known tool. If done properly, it can be the basis of your advocacy work (and the method can be used for other goals, too.) SWOT is another acronym that stands for<br><br>· Strength – what you or the idea/method/product you are trying to convince people about is really good at<br>· Weaknesses – what can the challenges be, what may be too difficult to embrace or implement, what may need to much effort<br>· Opportunities – what element of the environment (media coverage, legislation in the pipeline, wish to change) can help the realisation of what you want to achieve<br>· Threats – what are the main obstacles that can be in your way<br><br>It is important to remember that Strengths and Weaknesses are internal, you may even be able to improve and eliminate some weaknesses, while Opportunities and Threats are external, they do not depend on you, and it may take a lot of advocacy effort to minimise threats.<br><br>Ps are invited to perform a SWOT analysis of **the policy environment, the institutional environment, financial provisions and the public opinion** in your own context to assess what are the main barriers to achieve your goal, and what are the supporting factors.<br><br><br><br>Once it is done, the quadrants are put together and compared. It is best to work with post-it notes so that they can move them to a different quadrant if necessary. |

# Swot Analysis

| | **Helpful**<br>to achieving the objective | **Harmful**<br>to achieving the objective |
|---|---|---|
| **Internal origin**<br>(attributes of the organization) | **Strength** | **Weakness** |
| **External origin**<br>(attributes of the environment) | **Opportunities** | **Threats** |

| Title | **Your advocacy tools** |
|---|---|
| Time | 20 minutes |
| Necessary tools | Sheets of paper, pens |
| Description | What you already have |
| | Once Ps have reviewed the target groups, the enabling factors and the barriers in their environment, it is time to assess what tools to use to promote their messages. |
| | Ps work in small groups. |
| | Are there some established channels to decision makers? You might just need to specify your messages or be more mindful to use them as an advocacy tool. |
| | Examples of advocacy tools already there: |
| | - International treaties and policy documents – use relevant quotes<br>- Research articles<br>- Outcomes that you can share – better learning outcomes, higher level of well-being, etc. proven by piloting activities<br>- Photos – but please, be aware of children's privacy rights and never share photos with recognisable people in them!<br>- Media articles<br>- Methodology already developed |
| | What needs to be developed: |
| | Examples of advocacy tools that you can provide: |
| | - Testimonials<br>- Own research outcomes<br>- Infographics of what you are promoting<br>- Videos, audios, photos – again being mindful of privacy rights<br>- Newsletters<br>- Website<br>- Social media posts |
| | Using the rules of brainstorming, Ps collect ideas for both groups. |

| Title | **Successful Educational Action planning** |
|---|---|
| Time | 60 minutes |
| Necessary tools | Printed template for each group/pair. |
| Description | Ps work in pairs or small groups. Each pair/group identifies an advocacy task and designs action following the template (see printable version below). |
| | The actions are shared and other Ps act as critical friends. |

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| | |
|---|---|
| 1. Identified advocacy needs | |
| 2. Specific objective/s of advocacy | |
| 3. Action(s) required | |
| 4. Resources needed | |
| 5. Participants and target groups | |
| 6. Communication channels | |
| 7. Advocacy tools used | |
| 8. Timetable | |
| 9. Expected results | |
| 10. Evaluation | |

**Further reading**

Successful Educational Actions for Inclusion and Social Cohesion in Europe edited by Ramón Flecha https://www.goodreads.com/book/show/22958082-successful-educational-actions-for-inclusion-and-social-cohesion-in-euro

PHERECLOS Open Schooling advocacy toolkit https://library.parenthelp.eu/phereclos-open-schooling-advocacy-toolkit-for-educators/

**Online learning options**

Public policy innovation https://www.edx.org/executive-education/the-london-school-of-economics-and-political-science-public-policy-innovations

## +1 Harvesting and evaluation of the training

### KNOWLEDGE BASE

Evaluating the training is essential both for the participants and the facilitator. We suggest using one or more of the following harvesting activities that enable participants to gather their thoughts and think through what they have experienced. It is also an excellent opportunity for the facilitator to assess which methods proved to be particularly useful/fun and which might need further refinement.

Beside these activities it is also useful to ask Ps to fill a short, anonymous evaluation questionnaire (see below the printable version). The questionnaire can also be online to save paper, but it is preferable to ask Ps to fill it in situ (e.g. using their smartphones), before leaving the training site.

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# Training Evaluation Form
for *participants* of the BioBeo Training

**Date:** _____

**Location:** _____

**Trainer:** _____

**Instructions:** Please indicate your level of agreement with the statements listed below in #1-11.

|  | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| 1. The objectives of the training were clearly defined. | O | O | O | O | O |
| 2. Participation and interaction were encouraged. | O | O | O | O | O |
| 3. The topics covered were relevant to me. | O | O | O | O | O |
| 4. The content was organized and easy to follow. | O | O | O | O | O |
| 5. The materials distributed were helpful. | O | O | O | O | O |
| 6. This training experience will be useful in my work. | O | O | O | O | O |
| 7. The trainer was knowledgeable about the training topics. | O | O | O | O | O |
| 8. The trainer was well prepared. | O | O | O | O | O |
| 9. The training objectives were met. | O | O | O | O | O |
| 10. The time allotted for the training was sufficient. | O | O | O | O | O |
| 11. The meeting room and facilities were adequate and comfortable. | O | O | O | O | O |

(*More questions on back* ➜)

1

12. What did you like most about this training?

13. What aspects of the training could be improved?

14. How do you hope to change your practice as a result of this training?

15. Please share other comments or expand on previous responses here:

**Thank you for your feedback!**

2

## ACTIVITIES

| Title | Alphabet harvest |
|---|---|
| Time | 15 minutes |
| Necessary tools | Black- or whiteboard, chalk or whiteboard markers |
| Description | F writes the alphabet on the blackboard, Ps say words starting with each letter, saying what they take away from the training. E.g. I take away Awareness for A. |

| Title | Lucifer harvest |
|---|---|
| Time | 10 minutes |
| Necessary tools | Box of matches, glass of water |
| Description | Ps sit in a circle, and they pass around a box of matches and a glass of water. Each P lights a match and can talk as long as the flame is on, reflecting on the training. |

| Title | Star moments |
|---|---|
| Time | 12 minutes |
| Necessary tools | Box of matches, glass of water |
| Description | Each P is asked to mention one "star moment" they saw in another member. A "star moment" is referred to as a talent, gift or contribution towards the group. F must make sure every member of the team gets a star moment. |

| Title | Objects harvest |
|---|---|
| Time | 15 minutes |
| Necessary tools | Various objects, one for each P |
| Description | Ps take out various objects from a bag. They have to explain how that object is connected to their experiences of the training. |

| Title | Before the training...., after the training.... |
|---|---|
| Time | 10 minutes |
| Necessary tools | - |
| Description | Ps are asked to complete the sentence. |

| Title | Snowstorm |
|---|---|
| Time | 15 minutes |
| Necessary tools | Sheets of paper, pens |
| Description | Ps write down what they learned on a piece of paper and wad it up. Given a signal by the F, they throw their paper snowballs in the air. Then each P picks up a nearby response and reads it aloud. |

| Title | **Elevator Pitch** |
|---|---|
| Time | 15 minutes |
| Necessary tools | - |
| Description | Ps work in pairs and try to summarise the main idea of the training in under 60 seconds to another student acting as a well-known European decision-maker. After summarizing, Ps should identify why the famous person might find the training significant. |

## Extra resources

A Playbook for Family-School Engagement https://library.parenthelp.eu/a-playbook-for-family-school-engagement-by-brookings/

Captain's Handbook – school leadership in the digital age https://library.parenthelp.eu/captains-handbook-sails-resource-for-school-leaders/

Guidelines to support equitable partnerships of education institutions and the private sector https://library.parenthelp.eu/guidelines-to-support-equitable-partnerships-of-education-institutions-and-the-private-sector/

Know Your Parents – research report https://library.parenthelp.eu/know-your-parents-research-report/

Parental engagement as active citizenship (book chapter) https://library.parenthelp.eu/parental-engagement-as-active-citizenship-european-and-global-inspirations-to-address-major-challenges-is-education/

| | | |
|---|---|---|
| Backman, Fredrik | Things My Son Needs to Know About the World | https://www.goodreads.com/book/show/42833687-things-my-son-needs-to-know-about-the-world |
| Blum-Ross, Alicia – Livingstone, Sonia | Parenting for a Digital Future: How Hopes and Fears about Technology Shape Children's Lives | https://oxford.universitypressscholarship.com/view/10.1093/oso/9780190874698.001.0001/oso-9780190874698 |
| Bregman, Rutger | Humankind: A Hopeful History | https://www.goodreads.com/book/show/52879286-humankind |
| Bregman, Rutger | Utopia for Realists: And How We Can Get There | https://www.goodreads.com/book/show/36690518-utopia-for-realists |
| Clearfield, Chris – Tilcsik András | Meltdown: What Plane Crashes, Oil Spills, and Dumb Business Decisions Can Teach Us about How to Succeed at Work and at Home | https://www.goodreads.com/book/show/40910273-meltdown |
| Epstein, David | Range: Why Generalists Triumph in a Specialized World | https://www.goodreads.com/book/show/41795733-range |
| Feldman, Deborah | Unorthodox: The Scandalous Rejection of My Hasidic Roots | https://www.goodreads.com/book/show/13547241-unorthodox |

Deliverable 2.1: Train the Trainer Manual – Engaging stakeholders, especially parents and students. at various governance levels

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| | | |
|---|---|---|
| Gardner, Howard | Frames of Mind: The Theory of Multiple Intelligences | https://www.goodreads.com/book/show/294035.Frames_of_Mind |
| Gopnik, Alison | The Gardener and the Carpenter: What the New Science of Child Development Tells Us About the Relationship Between Parents and Children | https://www.goodreads.com/book/show/28595855-the-gardener-and-the-carpenter |
| Grant, Adam M. | Originals: How Non-Conformists Move the World | https://www.goodreads.com/book/show/25614523-originals |
| Greene, Joshua D. | Moral Tribes: Emotion, Reason, and the Gap Between Us and Them | https://www.goodreads.com/book/show/17707599-moral-tribes |
| Juul, Jesper | Leitwölfe sein Liebevolle Führung in der Familie | https://www.thalia.de/shop/home/artikeldetails/A1047547712 |
| Kahneman, Daniel | Thinking Fast and Slow | https://www.goodreads.com/book/show/11468377-thinking-fast-and-slow |
| Machol Bisnow, Margot | Raising an Entrepreneur: 10 Rules for Nurturing Risk Takers, Problem Solvers, and Change Makers | https://www.goodreads.com/book/show/27214321-raising-an-entrepreneur |
| Milovidov, Elizabeth | PARENTING IN THE DIGITAL AGE Positive parenting strategies for different scenarios | https://rm.coe.int/publication-parenting-in-the-digital-age-2020-eng/1680a0855a |
| Mogel, Wendy | The Blessing of a Skinned Knee: Using Jewish Teachings to Raise Self-Reliant Children | https://www.goodreads.com/book/show/537661.The_Blessing_of_a_Skinned_Knee |
| Peddiwell, Abner J. | The Sabre-tooth Curriculum | https://www.goodreads.com/book/show/122964197-sabre-tooth-curriculum-by-abner-j-peddiwell |
| Perry, Bruce D. | The Boy Who Was Raised as a Dog: And Other Stories from a Child Psychiatrist's Notebook -- What Traumatized Children Can | https://www.goodreads.com/book/show/129909.The_Boy_Who_Was_Raised_as_a_Dog |

| | Teach Us About Loss, Love, and Healing | |
|---|---|---|
| Peterson, Jordan B. | 12 Rules for Life: An Antidote to Chaos | https://www.goodreads.com/book/show/30257963-12-rules-for-life |
| Price-Mitchell, Marilyn | Tomorrow's Change Makers: Reclaiming the Power of Citizenship for a New Generation | https://www.goodreads.com/book/show/26837473-tomorrow-s-change-makers |
| Reischer, Erica | What Great Parents Do: 75 Proven Strategies for Raising Fantastic Kids | https://www.goodreads.com/book/show/26891488-what-great-parents-do |
| Robinson, Ken | You, Your Child, and School | https://www.goodreads.com/book/show/35743649-you-your-child-and-school |
| Sahlberg, Pasi – Doyle, William | Let the Children Play: How More Play Will Save Our Schools and Help Children Thrive | https://www.goodreads.com/book/show/41551701-let-the-children-play |
| Shafak, Elif | How to Stay Sane in an Age of Division | https://www.goodreads.com/book/show/50485581-how-to-stay-sane-in-an-age-of-division |
| Sulloway, Frank J. | Born to Rebel: Birth Order, Family Dynamics and Creative Lives | https://www.goodreads.com/book/show/907447.Born_to_Rebel |
| Thaler, Richard H. – Sunstein, Cass R. | Nudge: Improving Decisions About Health, Wealth, and Happiness | https://www.goodreads.com/book/show/3450744-nudge |
| Westover, Tara | Educated | https://www.goodreads.com/book/show/35133922-educated |

You may also want to explore the resources quoted in the footnotes.