MYW GUIDE FOR MENTORING TALENT

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1 Introduction

1.1 Make Your Way Project

Objectives

MAKE YOUR WAY project intends to support the promotion of work-based learning (WBL) in all its forms by developing relevant collaborations to open further opportunities for young VET students to apply knowledge in practical, "hands-on", and "real life" workplace situations, at the same trying to enhance their entrepreneurial attitudes, in particular by working in LABs. Thus, the project takes benefit of the concept of "Fab labs", or LAB, a small-scale workshop offering digital fabrication, proven to boost innovation and entrepreneurship, as they are platforms for learning and innovation: a place to play, to create, to learn, to mentor, to invent.

Such laboratories (FAB LABs) help connect a community of learners, educators, technologists, researchers, makers and innovators. There is World Bank data confirming that such LABs help multidisciplinary teaching, learning, research, and entrepreneurship, and when there is close collaboration between the educational system and industry, based on the strength of all stakeholders this approach can successfully address local needs. LABs can help strengthen and expand VET-industry partnerships through prototyping joint research or products with digital fabrication machines. Also, access to modern equipment, digital modelling and design tools such as 3D printers and laser cutter soften unleash creative talents.

The project also aims to bring more innovation to VET system by contributing to the continuous professional development of VET teachers, trainers and mentors in both school and work-based settings, with a focus on developing effective digital, open and innovative education and pedagogies, by developing materials that can help those professionals assist young VET learners in taking the most benefit from using LABs and from other WBL solutions, as well as spreading the concept of LABs and promoting their closer collaborations with the VET system, while preparing both sides for such partnerships(VET teachers and LABs staff, who often become VET mentors/trainers).

Results

During the project implementation, the consortium will develop three intellectual outputs which are the core deliverables and which should be communicated and disseminated. These are:

- **IO1 Practical guide for bringing LABs to life –** The practical guide will consist in a catalogue with best practices of various LABs in Europe that promote both entrepreneurial and technical skills.
- **IO2 Toolkit of learning materials –** This toolkit will consist of a set of self-study materials, videos, tutorials, practical exercises and assignments, diagnostic tools, tests, etc, which cover 2 areas: entrepreneurial skills and development of technical skills.
- IO3 Roadmap MAKE YOUR WAY and guide for mentoring talent a roadmap intended to provide guidance to future implementations of the developed learning materials; plus a comprehensive guide for mentors/trainers/facilitators on pro-entrepreneurial mentoring (mentoring talent).

Targets

The project target is divided by groups according to their role in the project implementation. Direct target groups will integrate the project activities and will benefit from the project products. Indirect target groups represent a second but higher level of implementation, since they will incorporate the elaborated project products into their offer. These target groups are specified as follows:

1. Direct target groups (primary target group):

- VET learners, youngsters aged from 16 up to 26 (who become LAB users);
- VET teachers, trainers and mentors who are supported in their continuous professional development (to assist young VET learners in taking the most benefit from using LABs and from other WBL solutions);
- VET providers/institutions and organisations;
- LABs staff /facilitators to be better prepared for partnerships/closer collaborations with VET systems/providers and for spreading the concept of LABs further;
- LABs (their management and staff).

2. Indirect target group (secondary target group):

- Decision makers: municipalities, regional and local authorities (public entities withy responsibilities in school education);
- Teachers associations and unions;
- Entrepreneurs (individuals) at local and national level;
- Training providers (continuous teachers training);
- Higher Education providers;





- Business support entities such as: business associations/chambers of commerce; business incubators, business angels at local and national level
- Partners at EU level from previous and current projects

1.2 IO3 – MYW Guide for Mentoring Talent

MYW Guide for Mentoring Talent is a comprehensive guide for teachers, mentors, trainers and facilitators on pro-entrepreneurial mentoring. The objectives of the guide are:

- to address the professional development of VET teachers, trainers and mentors to help them assist young VET learners in taking the most benefit from using LABs and from other WBL solutions;
- to spread the concept of LABs and promoting their closer collaborations with the VET system and prepare both sides for such partnerships (VET teachers and LABs staff may become VET mentors and trainers);
- to prepare VET learners to act as tutors for potential younger VET learners (peer activities) and to help those "young mentors" to carry out peer activities with their younger colleagues (such sharing approach is very common in LAB environment).

2 Peer learning approach

Peer learning approach is a type of formal or informal learning in which students interact between each other, learn from each other and give themselves feedback. It can either happen in an authentic workplace where students get in touch with real work issues and solve all kinds of work related situations, or within the classroom, if the teacher steps back from the traditional model of lecturing.

In our experience gained in previous projects and based on a long-standing functional theory, students need motivation so they are willing to learn and develop. That is why the process cannot be passive, with a lecturer just talking down to his audience.

As far as the teaching methodology within the MYW project is concerned, the peer-to-peer approach can be described as an experiential liberalism. In real life it means that objective and/or theoretical findings give way to subjective experience. So-called participational methods (group/team work; role-playing; learning through action) are preferred to the traditional forms of lectures, etc. Active learning is promoted, with communication between the trainers and the peers, co-operation, quick action, and improvisation being very important. The purpose of such processes is to mould the participant into





one who does not just "suffer" through the training but goes along with it gladly and with zeal. We want everyone to be well-aware of what is going on in real-life situations. The methodology takes into account also the fact that every individual has his own learning style, and they can all learn from each other (peer-to-peer), including the teacher, no matter how experienced he or she is. In fact, the learning process is always about a (re)discovery, as well as the process of innovation.

Teachers tend to be too much keen on getting the right answers rather than asking more and more questions which in the end will open new possibilities to look at a situation. In peer-to-peer cooperation, there is a higher risk you will not get a really appropriate feed-back, as well as a higher chance you will get a new inspiration, that would never come from an expert's mind.

As Brendon Burchard says: "The top experts in the world are ardent students. The day you stop learning, you're definitely not an expert." The same should be valid for teachers at least in MYW project.

TRAINING METHODS from the peer learning approach perspective

Brainstorming

Description

A problem or a situation is being resolved through some stimulating ideas coming from the participants. They are encouraged to say whatever comes to their mind regardless of whether the ideas are feasible or not. The outburst of imagination is supported, no criticism is allowed. After this, the participants are invited to work out their suggestions, and finally the ideas are analysed and evaluated. In MYW training we often use this method to perform the so-called round of ideas, so that teachers get feedback and the participants can draw inspiration from one another.

Advantages

Active participation by all students: utilisation of their ideas and experience.

Disadvantages

Relatively time-consuming; the teacher has to be highly skilled.

Discussion

Description





Using this method, the desired effect comes really from the participants, not the teacher. The trainer only oversees the discussion and gives it direction.

Advantages

Active participation by all trainees; reiteration of previous experiences; generates interest in the topic.

Disadvantages

To achieve anything of value, the discussion must be well managed.

Interactive video

Description

During the various training activities, the participants are being recorded on video. Afterwards they can see for themselves how they have performed, can analyse and evaluate.

Advantages

The facilitation of feedback; the participants will get to know themselves better.

Disadvantages

Time-consuming; worries and/or misgivings amongst the participants; the teacher must be highly skilled, and must ask for permission to record.

Role swapping

Description

The students become teachers. They will get training materials which they will discuss and then present conclusions to others. We mostly use this method in group exercises.

Advantages

Testing the knowledge base as well as whether theory corresponds to practice; checking communication skills and providing a platform for spontaneous discussion. Raises the interest of the participants.

Disadvantages

Time-consuming; the discussion must be well managed, and the teacher must be highly skilled.





Presentation

Description

The participants talk about a topic in front of the group.

Advantages

Helps to develop communication skills.

Disadvantages

Time-consuming; everyone has to be given the same opportunity to present.

Case study

Description

The participants are given a fictitious situation which, however, is mostly based on real events. They will have to analyse it and consider possible solutions.

Advantages

Provides a topic for discussion; creates an opportunity for active participation; it is possible to share experiences and ideas.

Disadvantages

Despite all the case studies that we use in our training being based on reality, they are not real themselves. Consequently, the training situation must be distinguished from a real one.

Individual work

Description

The teacher sets the participants individual tasks, and they work on them.

Advantages

Individual learning experience. Application of acquired knowledge and experience in practice.

Disadvantages

Uncertainty about whether the task has really been fulfilled.





Description

Based on instructions, the participants perform certain activities together. If the goal is met and the participants have a chance to analyse and evaluate the activities with hindsight, they will have learnt by experience. In this training we stress opportunity, and exercises are devised in such a way that they give ample space for such sort of learning.

Advantages

Active participation by all the trainees.

<u>Disadvantages</u> Relatively time-consuming; teacher must be highly skilled.

Lecture

Description

This method is used to relay information, facts and theory. Lecturer speaks, the participants listen.

Advantages

Comprehensive information is given in a structured way; the contents are always fully controlled by the lecturer.

Disadvantages

It is not likely that the participants will remember everything. Low trainee activity, no possibility to take part. Concentration has only a limited span.

3 Guidelines for teachers

Traditional learning methodologies have concentrated mentoring on the side of teachers, who were considered to be "bearers of wisdom" and, therefore, able to guide learners.

In contrast, at ikaslabs — learning laboratories for skills and human development at learning centres — the learner is put at the centre. It is mainly for that reason that these laboratories require active methodologies that allow the student to learn by doing. In this context, teachers guide the process,





but from a very different position: they accompany the student, watching over the development of the learning process.

In any case, there is no doubt that the success of a learning laboratory comes from its level of dynamisation and the mentoring effect among peers that make use of it. In this context, a question rapidly comes to mind: what skills do teachers need to develop to facilitate student peer mentoring?

Such skills are closely linked to the kind of actions that the laboratory encourages itself. There are at least two dynamisation systems depending on the type of laboratory:

• Outside the education environment: learning laboratories require a more structured and guided dynamisation.

• Within the education environment (learning centre): laboratories' performance increases as the learning methodological model becomes active-collaborative. Ikaslabs are an example of this kind of laboratory.

Experience with ikaslabs builds on the challenge-based collaborative learning model. In essence, the goal is to provide a challenge to students along with a solving dynamic within the classroom that enables prototyping.

The challenge must be as follows:

• An ACTIVE COLLABORATIVE experience:

• The **team** is the learning unit that allows students to go through the challenge solving phases. Teachers must be trained to design, dynamise and assess learning through teamwork, acting as a reference model for students.

O Students take active part and are the protagonists of their own learning process. They

learn by doing. Teachers must be trained to boost the active development of skills without intervening in the students' internal team self-organisation, team dynamics, decision-making processes, etc.

A CREATIVE process:





It follows a coherent sequence, backed by a design and dynamisation plan. Teachers must
 be trained to provide coherent sequences where both objectives and dynamics are oriented towards
 learning acquisition.

Challenge proposals allow **multiple solutions**. The task of solving triggers creative thinking through divergent and convergent thinking processes. Teachers must be trained to propose challenges that can be achieved in different ways so that a variety of outputs is produced.

O It helps acquire different problem-solving and decision-making thinking strategies and skills. Teachers must be trained to offer learning experiences that ask for and boost students' inclusive and reflective participation.

• A situation that is close to the working and social REALITY:

It belongs to a strategic learning journey towards the acquisition of a specific programme's skills profile. Teachers must be trained to design logic sequences for the challenges so that they deliver well defined learning outcomes.

O The situations proposed in the classroom reflect the programme's professional and social reality. Therefore, the challenge must cover all technical and transversal skills needed to tackle them from an **inter /transdisciplinary perspective**. Teachers must be trained to analyse situations that students will find in the professional world.

A balance must be kept. On one side, the situation must be close enough to the students' previous knowledge and interests; on the other, it must be **challenging enough** so that they can learn to manage uncertainty and make decisions as they thrive through it, accompanied by the teachers. The latter must be trained to create proposals that include reachable, yet challenging, goals, building on the students' previous knowledge.

A STIMULATING proposal:

It entails effort and commitment. Students must take responsibility for their own learning.
 Teachers must be trained to mobilise students towards reaching new, ambitious goals.



Values and sustainability are worked throughout the whole process by means of reflection and decision making: students challenge their own attitudes, their relationship to the environment and the overall impact. Teachers must be trained to trigger students' reflection over the underlying values of the decisions they make.

It sparks emotions that boost learning and talent. Teachers must be trained to plan an emotional itinerary embedded in the challenge design that allows consolidating learning and goal achievement.

A tool and a LEARNING means:

It is a tool that enables a deep and meaningful learning. Building on previous knowledge and experiences that are close to the working and social reality, they offer the chance to make sense out of the object of learning. Teachers must be trained to propose realistic and recognisable experiences that also trigger metacognitive reflection.

O Personal, social and professional transformation and evolution are the main objective, enabled by both group and individual constant reflection during the whole process. Teachers must be trained to open spaces of reflection both at individual and group levels.

These features that all challenges must have contain the essentials of teacher training. Probably the active-collaborative aspect can be more linked to triggering peer mentorship among students, but all of them are needed. All these characteristics contribute directly to increase the students' autonomy in making use of learning laboratories and engaging in mentoring processes.

As stated above, specific dynamics or models for challenge achievement are advisable in addition to the challenge proposal itself.

In conclusion, teachers need training, skills and competences to facilitate student peer mentoring. Such a training programme must offer learning outcomes linked to the design and dynamisation of learning challenges as described above. Essential features for this matter shall be the use of an active methodology, collaborative learning and a creative process that results in a prototype. Moreover, we must not forget that a constant assessment in terms of evolution must take place ever since the design phase of the actions.



4 Practical tips for students

Who the mentor really is?

In general, a mentor is a person or friend who guides a less experienced person by building trust and modeling positive behaviours. An effective mentor understands that his or her role is to be dependable, engaged, authentic, and tuned into the needs of the mentee. Peer mentoring occurs when the difference in age and experience is much less pronounced. The senior student's role is the tutor role and the aim is to deliver the knowledge or skills to the younger learners. A mentor helps someone explore options and find solutions by a blend of coaching and guiding.

"Help from peers increases learning both for the students being helped as well as for those giving the help. For the students being helped, the assistance from their peers enables them to move away from dependence on teachers and gain more opportunities to enhance their learning. For the students giving the help, the cooperative learning groups serve as opportunities to increase their own performance. They have the chance to experience and learn that "teaching is the best teacher" (Farivar and Webb, 1994)."

The benefits of peer mentoring

As a VET student, you may become "a young mentor" who acts as a tutor for younger VET learners and carries out peer activities with them. Such sharing approaches are very common in the LAB environment. As a mentor you will meet with younger colleagues to encourage, listen and make suggestions on their current activities and classes and get them involved in the activities.

The main benefits of peer mentoring are:

- Mentees have more time for individualized learning.
- Direct interaction between peers promotes active learning.
- Peer mentors reinforce their own learning by instructing others.
- Students feel more comfortable and open when interacting with a peer.
- Students share a similar discourse, allowing for greater understanding.

At this point it is also important to mention that studies show that the learning process through peer teaching is reciprocal. It happens as students often feel more comfortable when exchanging any kind of information with classmates or any other peers. In addition, it has been proved that peer teaching makes students excel, helping them obtain higher academic achievements.





"Peer teaching can enhance learning by enabling learners to take responsibility for reviewing, organizing, and consolidating existing knowledge and material; understanding its basic structure; filling in the gaps; finding additional meanings; and reformulating knowledge into new conceptual frameworks' (Dueck, 1993)."

The benefits students get from peer teaching are similar to those related to peer mentoring. Peer mentoring can be extremely effective for a wide range of students of different levels and personalities. Peer mentoring is a mutual way of learning and allowing both participants to develop transferable skills that will help them during their time at school and beyond.

The benefits of being a peer mentor:

- You can develop leadership and management skills and find new ways to be productive.
- You can contribute to the fact that younger mentees become connected to the school in innovative ways.
- You can improve soft skills such as: communication, active listening, problem solving that will help you in the labour market
- From teaching others and by taking some responsibility you can build your confidence and improve self-image.
- Being a peer mentor widens your point of view and it helps you interact first hand with extremely valuable information that might not be reachable on a daily basis.
- You will gain recognition for your skills and experience.
- You can benefit from a sense of fulfilment and personal growth.

Benefits of being a peer mentee

- You will gain practical advice, encouragement and support.
- You will learn from the experiences of others.
- You will increase your social and academic confidence.
- You will become more empowered to make decisions.
- You will develop your communication and personal skills.
- You will make new friends with similar interests.

Despite the fact that the experience of being a mentor has a lot of advantages, it is also important to be aware of challenges that may arise during the mentoring process.

The challenges of being a peer mentor



• Feeling Motivated - If a mentor is not motivated to help the mentee succeed, the result will be a poor experience for mentees and an unsuccessful mentoring relationship. Having the right mentors since the beginning is important, but it doesn't end here. The mentor should provide mentees with training and communicate with them throughout the relationship.

• Goal setting for mentees - Mentees don't always know what they want from their mentoring relationship, so it's important to help them set goals at the beginning. For this, the mentor will have to communicate the expected objectives, supply the necessary tools, and provide continuous training. Open communication is very important for the achievement of goals. Teach your mentees how to set SMART goals - this will allow the mentors and mentees to watch the advancement of the activities, and it keeps the mentee accountable for the achievement of the goals.

• Effective Matching – It's important to encourage mentees to be open to new faces, otherwise they might end up with a friend, which may not necessarily be the best option. A great way to avoid potential bad matches is by presenting mentees with the right mentor options. This will increase the likelihood of a successful match taking place, and a successful relationship being formed. Overcoming this challenge is crucial to the success of the

mentoring relationship.

• Open feedback - Sometimes mentees can be guarded when providing feedback, because

they may be worried about making a good impression or being completely open about how the mentoring relationship is going. The mentor should help mentees overcome their internal challenges by providing guidance on how they can remain confident while working with their mentor.

• Providing Structure - Inexperienced or unsure mentors may have difficulty providing structure to their mentees. But providing support and continuous communication for your mentees is crucial to the success of any mentoring relationship. Mentors can achieve this through continuous training and check-ins. It's also helpful to create a communication plan so this isn't forgotten.

• Tracking Outcomes - In the beginning of the mentoring relationship, objectives are set.

The challenge is in tracking the objectives and reporting the outcomes. Reaching the objectives proves the worth of the mentoring relationship. A Report on the outcomes should be prepared highlighting the results achieved and what should be improved.

Tips on how to be an effective peer mentor



- Be prepared You need to make a commitment to the relationship: you need to be prepared to help your younger colleagues in carrying out various activities.
- Be an active listener Listening is one of the most important mentoring skills. You need to
 develop the ability to be an active listener, which means being respectful and responding
 appropriately. Be open and honest about your own opinions, but do so with respect for the
 other person's point of view. Recognize that there are other ways of doing things and that your
 own ideas may not always be right.
- Know your limits It is very important to remember that you are not the mentee's only source of support. Resist the temptation to solve the problem yourself in an attempt to appear supportive. If the problem is beyond your knowledge or one where you possess minimum experience, it is much better to pass it on to a more appropriate resource.
- **Be empathetic** This means the ability to put yourself in another person's shoes and feel what they are feeling, even if you have not gone through that particular experience yourself.
- **Be inquisitive** Being inquisitive goes beyond just simply asking questions to others. It's about exploring the world around you, building on your level of understanding and being curious about why things are the way they are. By adopting an inquisitive outlook you'll quickly build up knowledge and skills that will help you to progress.

5 Final recommendations

To sum up, MAKE YOUR WAY project aims to support and promote FAB LABs and the goals behind functioning those laboratories, that is, among others, enhancing WBL approach, developing entrepreneurial skills of students, connecting and enabling cooperation of learners, educators, technologists, researchers and innovators. What is more, the project intends to develop professional skills of VET teachers, trainers and mentors in order to make a VET system more innovative.

MYW Guide for Mentoring Talent is a comprehensive guide for teachers, mentors, trainers and facilitators on pro-entrepreneurial mentoring. It address the professional development of VET teachers, trainers and mentors and prepares some of VET learners to act as tutors for younger VET students (peer activities) and it helps those "young mentors" to carry out peer activities with their younger colleagues (such sharing approach is very present in LAB environment). Moreover, the document spread the idea behind the LABs and promoted close collaborations between laboratories and the VET system.





In order to achieve the goals, the MYW Guide for Mentoring Talent introduces the peer learning approach - the comprehensive description of the peer learning approach gives insight to the structure of this strategy and pays attention to its real-life nature. According to the project objectives, a peer learning approach is an opportunity to experience the subject in a more experimental manner, which can result in enhanced motivation and better preparation for real-life situations. Eight training methods from the peer learning approach perspective are presented: brainstorming, discussion, interactive video, role swapping, presentation, case study, individual work, group exercise and lecture. It aims to help students to choose the right method, after considering its advantages and disadvantages.

The document contains guidelines for teachers, how to prepare VET young students to become mentors – as, after they acquire practical and theoretical knowledge, they can act as tutors for other students. This part takes the Ikaslabs as an example of good student-teacher collaboration and pays attention to various processes that need to be present while thinking about fruitful cooperation. An active collaboration between teacher and student means that the teacher acts as a reference model for VET students and the role of teamwork is crucial. Students learn mostly through practice and the teachers' role is to boost this process without too much interference. The whole process should be creative, multiple solutions are expected as an outcome, and thus teachers should trigger inclusive and reflective participation. Moreover, the situations offered in the FABs classrooms should be as close to the working and social reality as possible. This refers to assurance of strategic learning journey, inter and transdisciplinary perspective and challenging tasks. It is important that activities entail efforts and commitment, teachers need to trigger students to make reflection over its values and sustainability, but also they should embed emotional itinerary among students with metacognitive, open reflection at the end. Those features are crucial to be implemented by teachers together with assessment during the whole process.

The MYW Guide for Mentoring Talent, in accordance with its objectives, gives practical tips for students, to prepare VET students to act as mentors for potential younger VET learners. It explains the role of mentors and highlights the characteristics of peer mentors. Overall, mentors aim to guide students that are less experienced, by being engaged and authentic, they help to find the best solutions. Peer reviews enhance competences at the level of both sides – students and mentors. Listed benefits of the process include direct interaction or more comfortable situations, while mentors can, for instance, improve their management and soft skills. Mentees gain practical advice and support, they can also develop soft skills. The fourth chapter indicates the challenges of being a peer mentor and gives tips how to be effective in this role. Being motivated, proper communication of the expected objectives, effective matching, open feedback, providing structure for mentees and tracking the outcomes are discussed as issues of being a peer mentor. However, in order to avoid those problems, peer mentors should be: well prepared to help during activities, active listeners, empathetic





towards young colleagues, curious in undertraining, but also they should know their limits of knowledge.

Overall, together with other intellectual outputs (IO1 – Practical guide for bringing LABs to life, IO2 Toolkit of learning materials and IO3 Roadmap), this Guide that is based on knowledge and experience of partners, contains useful information about student-teachers collaborative works in LABs. It guides teachers to make their work effective and structured and it gives good recommendations for students to become proper tutors.







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