VET@HOME

*Piloting Virtual Practical Trainings for Culinary Arts VET*

**Protocol** and **Guidebook**
for trainers and company tutors in culinary arts
on how to conduct on-line VET practical training courses

# Contents

## List of abbreviations

| AVETAE (ASOO/AVITAE) | Agency for Vocational Education and Training and Adult Education of Croatia/ Agencija za strukovno obrazovanje i obrazovanje odraslih |
|---|---|
| ECVET | European credit system for vocational education and training |
| EQAVET | European Quality Assurance in Vocational Education and Training |
| EU | European Union |
| Cedefop | European Centre for the Development of Vocational Training |
| LLL | LifeLong Learning |
| LMS | Learning Management System |
| R&D | Research and Development |
| VET | Vocational Education and Training |
| VET@HOME | Project "Piloting Virtual Practical Trainings for Culinary Arts VET", Ref. No. 2020-1-BG01-KA226-VET-095185 |

# FOREWORD

The presented document (Protocol and Guidebook) is developed in the framework of project "**VET@HOME** - *Piloting Virtual Practical Trainings for Culinary Arts VET*", Project Ref. No. 2020-1-BG01-KA226-VET-095185, funded by the Erasmus+ Programme, Key Action: Cooperation for innovation and the exchange of good practices.

The development of the **Protocol and Guidebook** is the milestone of the VET@HOME project that **aims** at reinforcing the ability of VET institutions to provide high quality, inclusive digital education in culinary arts adapted to the post-COVID-19 operation standards in the food-and beverage industry.

## Project background

**VET@HOME** project is designed to create and pilot a standard unit-based syllabus model for **virtual practical training courses** (training practice) within the VET for the profession **"Cook".**

Searching for solutions that will allow the sustaining of vocational training in extreme circumstances (as the one caused by the COVID-19 pandemic), the project suggests a new approach to the delivery of **practical training courses** leading to qualifications that are adapted for distance and blended-mode delivery, usage of alternative learning facilities and the new operational circumstances of the food-and-beverage sector across the EU.

The COVID-19 pandemic has obligated VET providers all over the world to adapt their face-to-face training, to on-line. In most cases, this change was forced and not induced by research and testing, thus the methodology and the quality of the online training had to suffer. It was even more difficult when it comes to practical VET for the professions based on hands-on experience (such as the professions in the culinary arts industry as is the case with the Cook). With the lack of developed guidelines or procedures to be followed by the teachers, tutors and the managers in the VET institutions in general, the implementation of the practical training classes or sessions was fragmented, chaotic and many institutions ether interrupted the trainings or compromised on quality. In the rare cases when the training and education institutions managed to continue the training practice, they applied some urgent-response solutions that were not structured and questioned the results and learning outcomes.

In response to these difficulties the VET@HOME project addresses those lacks by proposing a **PROTOCOL** and **GUIDEBOOK** for trainers and company tutors in culinary arts on how to conduct on-line VET practical training courses, aimed to provide a standard and methodology for delivering high quality VET with digital tools.

In addition, the VET@HOME project develops an on-line platform for the **virtual delivery** of **practical training courses** for partial qualification for the profession "Cook" that is accessible on the project website. The 5 pilot courses available there are structured according to specially designed model unit-based syllabus adapted for distance-mode guided or semi-guided delivery. In this regard the Guidebook also contains an explanation of the VET@HOME e-learning platform and instructions on how to manage and utilize the resources available there.

The present document, then, contains two main chapters:

## Protocol

The protocol offers a model procedure (rules) for structuring and delivery of a vocational practical training course in a virtual environment with focus on culinary-arts professions, "Cook" in particular.

It outlines the sequence of course's learning components and the main requirements for their delivery in a distance mode – such as site, equipment, technology, means for trainer-trainee interaction, methodologies to be used, learning assessment, diagnostic assessment, performance assessment (trainees, trainers and training entity) etc., as well as the distribution of the learning activities within a definite time-span.

## Guidebook

The guidebook offers practical instructions that support trainers and tutors to operate in a virtual environment (in particular the one created in VET@HOME), to guide trainees from distance/on-line as well as how to evaluate trainees' performance. Besides being a guide on how to apply VET@HOME platform and resources in real training processes, O3 seeks to develop additional ideas for introducing innovations that rely on interactive training, as well as more general support on how to use and combine on-line resources, how to structure training content and how to navigate a learner-centered education. With digital technology, the role of educators and trainers is not any more to deliver information, but to assist in interpreting information.

## Research and development methodology

In order to create the Protocol and Guidebook, a specific methodology was put in place. All project partners jointly developed and adopted the R&D methodology, the design and structure of the output and engaged experts to join the transnational working group that conducted a desk and field research among the VET trainers in each partner country to identify the main difficulties in the training process experienced during the lockdown period. In the process of interviewing the key stakeholders who will use the present output – the VET teachers, tutors and managers – more than 100 questionnaires were collected and studied by the partners in the 5 project countries. Further analysis of the lessons learned from the desk research and the questionnaires was done, the findings were discussed among the partners to ensure adequate cross-country comparisons and to increase the relevance of the output to all national contexts and this resulted in distribution and development of the content of the Protocol and Guidebook.

Respectively, all project partners contributed to the development of the present document as follows:

**Project Partners:**

- International College Ltd. (IC), Bulgaria
- Formacion Y Asesores En Seleccion Y Empleo, SL (FASE), Spain
- Proandi Consultores Associados LDA (Proandi), Portugal
- Zdruzenie Institut Za Razvoj Na Zaednicata (CDI), Republic of North Macedonia
- National Agency for VET of Croatia / Agencija Za Strukovno Obrazovanje I Obrazovanje Odraslih (ASOO/AVITAE), Croatia
- Leantick Ltd., Bulgaria

## Aim of the protocol and guidebook:

The present document as a Protocol and Guidebook is aimed at providing a standard and methodology for delivering high quality VET with digital tools. It will equip the educators and trainers in VET with guidance on how to conduct training virtually and how to transfer the face-to-face training activities and content on-line while preserving the quality and skill-building value of training. The ultimate goal is to support and train the teachers, instructors and managers, to build rules and skills for the efficient use of digital resources

in VET, and to ensure their readiness to engage in digital learning by suggesting adapted to the new needs teaching and learning models that make the best use of digital resources and tools.

Respectively, as mentioned above, the **main users** of the present Protocol and Guidebook are to be the **VET providers** (incl. trainers, company tutors and education managers) that offer qualifications in the culinary-arts professions (and not only).

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# PROTOCOL

*The protocol is designed based on study and analysis of the best features of the emergency solutions applied during the COVID-19 pandemic by the VET providers and educators in effort to sustain the practical VET in the culinary arts professions. Cases and good practices from all the 5 project countries were exposed to help us present here structured ready-made pathways (action scenarios) on how to act in other critical situations or in order to provide resilient VET opportunities to potential learners who are prevented from visiting training facilities for many reasons.*

This protocol is meant to be a written plan that defines the procedures to be followed for delivering the practical training course in a virtual environment with focus on culinary-arts professions, "Cook" in particular. Through it, the partners aim to outline the most relevant rules and steps that any teacher/trainer who delivers online practical training in culinary arts should implement in order to make the best of each training course.

So, it will detail the requirements and the standard of activities' implementation that will have to be followed in order for the online training course to be successful, by describing "who" does "what", "when", "where "and "how".

| Who | the main actors |

•*the VET teachers/trainers and their students/trainees*

| What it concerns | the online "culinary arts training" |

•*courses for cook and other related vocational culinary training*

| When | the time/duration of the course's implementation |

•*distribution of the learning activities within a definite time-span*

| Where | the online environment of the course and the home environment for the student |

•*the course's learning components*

| How | the procedures for structuring and implementation of the training course |

•*using site, equipment, technology, means for trainer-trainee interaction, etc.*
•*how to proceed: the necessary steps/stages to be followed*

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## *A model procedure (rules) for structuring and delivery of a vocational practical training course in a virtual environment with focus on culinary-arts professions, "Cook" in particular*

## 1. Design and structuring of a course

Designing and structuring of a vocational practical training course in a virtual environment is a challenge by itself, and when it comes to the professions as the "Cook" profession it is even more complicated given the strong hands-on experience needed to work as a such in the actual business after completion of the training/education. Hence, even the resources needed for the organization and conduction of practical training in culinary arts are quite substantial and very specific (equipped training kitchen with the needed machines, special tools and appliances, food products, etc.) quite a lot of them could be replaced with alternatives (when needed in unusual circumstances) that could be found in most of the home kitchens nowadays.

Following this, the VET@HOEM project and this protocol in particular suggests an approach for utilization of the available resources in extreme situation and transferring the practical training to an online environment, following a simple step-by-step guide. Of course, this transfer is done at the appropriate price, thus further in the Guidebook the potential challenges will be mentioned together with ready-made solutions how to overcome them.

In the next pages we will suggest a step-by-step procedure to be followed in the process of design, structuring and implementation of a vocational practical training course in a virtual environment.

### Do your homework

Each new initiative, as is the design and development of a new course, usually starts with a preliminary research and preparation phase. In this first we must answer the question "Who may design and develop a course?". There are a few actors that could take-up this role of a developer, among them are the VET authorities (in their capacity of monitoring and policy-making body), the VET providers – professional/vocational schools, VET centers, adult-training institutes, etc.; VET experts and curriculum developers, etc. All of these need to assign a person or a team to implement this task. Even if you are a teacher/instructor in such organization assigned with the design and development of a new course or you are part of this team, the following steps will be helpful to do your job.

Before starting to write down the course syllabus you need to be aware of the context in which the training will be implemented. In this sense you need to make it clear what are the possibilities and limitations (the frame in which the course will be delivered) and the available/needed resources for it. Here is a list of tasks that can navigate you while preparing for the course development:

1. Discuss with the management of the institution what is the desired result from your work – to develop a course that is suitable for distance delivery of practical training in particular profession (e.g. Cook or equivalent) for students/adult learners. Consult with them the desired level of qualification, the planned duration, the potential circumstances in which the course will be delivered, etc.

2. Check the applicable regulations (laws, acts, orders, other applicable documents) that apply to the chosen form of the course – are there any obligatory parameters that you should take into account (such as minimum duration/workload, obligatory requirements towards the learners, teachers, instructors, facilities, course contents, etc.); are there any limitations or prohibitions (such as obligatory forms/modes of conduction of the training and/or examination procedures, etc.).

3. Analyze the available resources – make a list of all available resources that could be utilized in this course. Think of all kind of resources: technological (available e-learning platforms, technological support, capacity to develop and sustain a new technological solution, etc.); human (available teachers, instructors, company tutors, administrators, etc. who can support the training process); material (available training facilities for the demonstrations, specialized equipment needed for training in the profession, concluded contracts with companies for practical training in the business, etc.), intellectual (developed or accessible digital training resources for same profession or the same topics from similar courses), others. It will be best if the new course could be designed according to them and no additional investments will be needed, but even if this is not possible at least you will able to plan and search for possibilities to upgrade the existing or obtain new/additional ones.

4. Discuss with colleagues (in or out of the institution) possible solutions that were implemented before and the results from them (pedagogical, technological, organizational, etc.). This will give a different perspective and ideas, as well as will eliminate the possibility of duplicating the efforts in case some of the ideas were already tested in practice.

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**Do your job**

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Having established the frame for the course design and development in the previous phase, here you need to focus on the design of the training. This will require for you to put all your thoughts and ideas "on paper" and to organize them in the proper form. Speaking of the form, here we would like to specify that in the VET@HOME project we are focused on the vocational education and training and the outputs we develop are based on the understanding that the training process is guided by documents. Such documents are the state educational standards, national framework programs, curriculum and syllabuses. To distinguish the difference between the latter here we accept that: "*The curriculum contains the overall content as provided by an education board for a particular course spanning across a stipulated time period. Whereas the syllabus explains the summary of different topics covered or units that will be taught in a specific subject or discipline under that particular course.*"[i]

Respectively, in the context of the VET@HOME project when speaking of design and development/structuring of a course, we aim at composing **a syllabus** for this particular course. This is because the project is piloting a syllabus for virtual delivery of Vet for partial qualification and not having the ambition to deliver a full curriculum for the profession of Cook. Naturally, the task can be expanded to creating a curriculum for vocational education/training in a profession, thus the term is used here as an option (if the case), but basically with this we mean a structured plan that is intended to organize the proper relationship between teachers/instructors and students/trainees, define the desired learning outcomes, the training contents, the teaching-learning methodologies, forms of delivery, as well as both sides' responsibilities and requirements.

There are a few parameters concerning the delivery of any online-based vocational training that lay outside of the capability of the teacher/ trainer or even the syllabus' developer to influence and/or change. Among those are the requirements and limitations imposed by the existing legislation that set the frames, rules and procedures for the organization and implementation of the VET in general and those norms should not be broken in order to ensure the course's and training's eligibility.

So, you should start **designing the course** within your frames (limitations imposed by the legislation) and define the obligatory parameters of the training:

### *Step 1: Define your course identity*

Your course need to have an identity or need to be defined and presented with its key parameters. Here is w3hat you should start with:

1. Give the course a title (name) that reflects best its contents and purpose and is clear enough to be understood by the potential learners, as well as meeting the requirements for further certification (if the case and if it falling into a list/catalog/inventory with professions and/or specialties).
2. Define the level of qualification – National and European Qualification Frameworks could be used for making a reference to the particular level.
3. Plan for the minimum/maximum total duration of the course (period) and/or workload (in study hours).

## Step 2: Define your learning outcomes

A key step to be performed is to set **learning outcomes** for each separate unit (if any) or for the whole course in case it is considered as one unit (e.g. one subject, discipline, etc.).

At this point it is important to highlight the importance of the alignment in course design meaning that the defined learning outcomes, the assessments, and the selected activities should support each another. This is because the three key elements in designing and developing a course, namely:

- learning goals, outcomes, and objectives;
- assessments and feedback;
- instructional strategies, learning activities, and resources

are to be considered together as three parts of a balanced triangle intended to provide students with the best learning opportunities. Here are some guidelines how to ensure the alignment among them:

*Learning Outcomes (LOs):* the well-defined LOs will serve to guide the selection and design of learning activities and assessments. A good LO contains a verb that can guide the selection or creation of activities that students need to engage with to achieve the outcome.

*Assessments:* they are in alignment when they assess whether or not a student can achieve the specific outcome. The same verb as in the LO can be used to guide the selection or creation of assessments that can measure how well students achieved the outcome and facilitate appropriate feedback.

*Activities*: activities and resources are in alignment when they grant the students with the best opportunity to learn what is specified in the learning outcome as intended results.

*Ensuring Alignment:* it is very improtant that learning activities, including skills practice, match the learning outcome and that assessments measure what students learned and practiced. After reviewing the course, you may find out that there is an activity or assessment that is not aligned with the LOs. In such casesthere is a need to modify the activity or assessment to reflect the outcome or to revise the outcome itself.

## Example

*Here is an example of this relationship between these three components affecting each other in the context of the VET@HOME project:*

- *The learning outcome, or objective of a lesson is to explain and demonstrate the Mise en Place principles and procedures.*

- *The activity for the lesson is to outline and demonstrate the factors that needs to be taken into account (what will be produced in service – recipe, techniques and tools used, products and ingredients needed, safety rules and procedures to be applied while setting up the station, etc.), the steps that need to be implemented (pre-preparation tasks), and the results that needs to be obtained (set-up station).*
- *The assessment of this lesson comes in the form of an (practical) exam, which asks students/trainees to prepare a work station according to the Mise en Place principles - via established online live connection with the examination board.*

Another step you need to do before start writing the LOs is to review the information about course goals and the audience (potential and prospective students/trainees) from the analysis phase and write the associated learning outcomes. There are many freely available sources discussing the writing of LOs, so we suggest you to explore the literature on the subject and will not focus more in details here.

## Step 3: Determine Course Structure

Using the learning outcomes and information from the analysis phase, determine how you want to organize and structure various pieces of information, and sequence the training content. In this usually the content flows from basic and broad concepts to more complex and specific ideas. Content organization can be based on theme, or related concepts, issues and topics. Some examples of different approaches for organization of the contents are:

- Organize the content by time-frames – for example these could be: in weeks, in months, in semesters, etc. Then you can plan a set of learning outcomes for each time-frame/period.
- Subdivide the contents into units and modules with learning outcomes planned for each unit or module (as is the case with the VET@HOME courses).

It is important to structure the course contents and activities in such a way, so the students understand and follow the links between the subsequent parts of the content meaning that they will acquire what they need in order to scaffold their learning and meet the more complex learning outcomes.

Once you establish the structure elements (periods, units, modules, etc.), pay attention to the presentation of the course. It will be wise to include some overview or guide pages for the learners to be able to follow the structure in the way you organized it – for example make a short summary for each week/unit/module to serve as a map for the students as they engage in the materials include information such as: an introduction, learning outcomes, readings and resources, topics for the week/module, and learning activities.

## Step 4: Determine Assessment and Feedback

It is important to think about assessment, evaluation and feedback early in the design phase as it will help to determine instructional strategies, learning activities, and learning materials and resources after you determine the main assessment for the course. There is a great possibility that the learners in an online courses look for information about assessments and evaluation at the very beginning of the course. Thus it is advisable to communicate details regarding the evaluation early enough by using descriptions of each evaluation item, notes and announcements, evaluation charts and schedules, etc.

There are many possible forms and tools of assessment and providing feedback to the students on their performance. We are not planning to list them all but we will focus on those that are suitable for an online delivery distant learning mode.

When start thinking of assessment types first take into account how the learners could demonstrate that they have met the learning objectives. In the case of online training you may consider:

- Assignments
- Projects
- Presentations
- Quizzes and exams, etc.

When you choose the appropriate assessment types and tools as to you course content and LOs, analyze each of them to determine if it will work, what skills and competences each of them will allow you to assess, are there any other types that can give more correct results or provide deeper understanding of the students' performance.

Further, you need to think of the resources needed to support the assessment process – what will be needed in order to collect and process the information, which tools are more appropriate, what technologies may be put into use, etc.

*Example:* In the VET@HOME case, an autonomous learning management system was developed and set-up supporting various options for assessment and evaluation of the students, including: assignments sections (with opportunity to submit the work to the Instructor within a defined deadline); online quiz tools (various types of quizzes to choose from – simple, dynamic, etc.), etc. Other possible technologies include: rubrics, grade books, etc.

Another aspect to be considered here is how the Instructor will provide feedback to the student regarding his/her performance. Examples include: automated or manually provided feedback via the online quiz tool; comments provided in reply to the submitted assignments (through the platform), written or audio recorded feedback on assignments, etc.

## Step 5: Select / Design Instructional Strategies and Learning Activities

Next step is aimed at integrating instructional strategies into the course structure and thus determining methods and learning activities designed, arranged and used exclusively for this course with the aim to maximize students' ability to learn. In the case of online course, the instructional strategy will likely include the following:

- An introduction to the course – explaining the course structure and the needed resources and actions for its completion.
- Introducing students to subject matter, concepts and ideas
- Introducing and demonstrating skills
- Opportunities to practice with feedback (e.g. exercises, virtual practice, etc.)
- Tutoring/guiding and providing feedback to ensure students can perform to expectations
- Providing opportunities for students to cooperate
- Assessment of learning and performance with feedback incorporated into the assessment activity
- Incorporating reflection activities and planning for time for personal reflection on learning and performance.

Design and/or select the learning resources, learning activities and instructional strategies that will provide learners the best opportunity to meet the learning outcomes set in Step 2 by considering what learners will need to know and be able to do after the completion of each unit/module. In this a set of question may guide you to complete your task:

- What are the readings, videos, notes etc. that learners need in order to learn about the topics related to the learning outcomes?
- Are there available existing resources that will serve this purpose, or you need to adjust / develop new resources?
- What are the learning activities and experiences that learners can engage with to apply their knowledge, master the related skills, and complete the course assessments?
- What are the teaching strategies that an Instructor can use to help learners engage with the content and understand the concepts?

## Step 6: Prepare Your Course Syllabus

The last step would be to compose the syllabus as a key document guiding the training, and a mean for communicating details about the course and for setting expectations for students.

For this you will need to structure and put into the requested form the following information:

- Course Description – provide short information about the course, its purpose, who is the course intended/suitable for, entry requirements (if any), certification parameters, summary of the topics, etc.;
- Course Objectives – describe the course objectives and explain the LOs;
- Course Resources – describe the resources prepared to be used (training content and materials), as well as describe if the learners will need to use other resources;
- Course Assessment and Evaluation – provide information for the assessment and evaluation procedures and tools;
- Course Schedule, course Instructor and contact information – this information is about to be introduced when there is already a course opened for enrollment. For this you will need to define time-distribution of the learning activities within a definite time-span/time frames for each activity (when students do each activity and for how long).

## Check your results

To be honest, your job does not finish with the design of the course and suggestion of a curriculum and/or syllabus for a particular training. You need to continue to observe and constantly monitor the practical application of the course in a real teaching-learning environment. To do this, you need to plan for procedures and parameters to be monitored, as well as the sources you will use to verify your results.

Here is a quick guide with steps on how this can be done:

1. Define who will be responsible for monitoring the course implementation: for example: you may do it yourself as a course developer; you may delegate responsibilities to other actors involved in the course preparation and/or implementation – teachers, instructors, company tutors, etc.

2. Define parameters that should be monitored - for example these could be: no. of students/learners willing to sign-up for (or enrolled in) the course; no. of successfully graduated students; level of satisfaction of the students from the course; level of employment in the studied profession among the graduated students, etc.

3. Once you have the parameters defined, choose proper tools for monitoring (e.g. feedback forms for the students to share their satisfaction; yearbooks – to be able to track the number of students enrolled/completed the course; alumni club to follow the career progression of the graduates, etc.).

4. Define success criteria for the course implementation that fit in your organization's development strategy and are measurable through the tools identified above. Such criteria could be for example: minimum percentage of students who share that they are very satisfied with the: course organization / teaching-learning methodologies used / technical assurance of the training / received support from the teachers or instructors; minimum no. of students that are interested/enrolled in the course; minimum number of students completed the course (or percentage of the graduates) who were employed in the profession, etc.

5. Define how the monitoring will be implemented – when (how often: constantly; upon course's completion; once a month/year, etc.), how (direct observation, collecting feedback, analyzing statistical data, etc.).

6. Analyze the results obtained according to the pre-defined parameters and compare them to the established success criteria.

7. Think of improvement measures that can influence the success rate according to the criteria defined.

8. Put the measures into implementation, track the results and assess the progress. Repeat the procedure if needed.

In this chapter, we outlined only the procedure to be followed when designing and structuring practical training in a virtual environment as steps. Specific pedagogical strategies for structuring an online-based practical training for the profession of "Cook", that were explored by the partners in the research process, are discussed in the Guidebook below, chapter *2.1 Structuring an online-based practical training*, while practical instructions on structuring a course in the VET@HOME platform itself are presented again in the Guidebook in chapter *1.2. Practical instructions on the use of the VET@HOME e-learning platform for delivery or practical training for the profession of Cook.*

## 2. Establishing an online learning environment

In this part we continue to provide more detailed guidelines and insights on the delivery of the virtual practical training in general and for the profession of Cook in particular.

Our next focus is how the Instructors can benefit from the available technologies in order to organize, facilitate and deliver distant mode online training. There are multiple directions in which the technologies (and IT in particular) can help when the training is organized online:

- They provide comprehensive tools in support of assessing the learning – many solutions are available already, such as quizzes with different type of opened/closed questions; fill the blank; word bank; matching exercises, etc. This helps a lot in the atomization of the process of assessment, eliminates the risk of arithmetic mistakes while scoring the tests and provides for transparency and fair treatment of the students;

- They give opportunity for immediate feedback on the students' performance (e.g. the students can receive their results/scores right after submitting the quiz)
- They help for creation of learning resources for the course (interactive readings, video-lessons, online discussion boards, etc.);
- They make accessible and functional online activities that simulate a face-to-face training process (virtual class rooms, video-conferences, interactive collaborating boards, forums, etc.);
- They provide opportunity for monitoring, tracking and evidencing the training process in great details (some platforms can account for the time spent by the student in reading/watching/doing an activity; they keep logs records; some allow for recording of online sessions; the Instructors can usually monitor the training process and the students through various indicators and reports, such as to if the assignments were submitted within the deadlines, where in the progress bar is a particular student now, etc.);
- They provide opportunities to increase student engagement with the course, the instructor and each other (some platforms provide for gamified elements of the learning that increases student's motivation; all platforms plan for interactive elements allowing the students to communicate with the instructors and with each other – forums, chats, message boxes, etc.).

In the next points we give again a step-by-step protocol to be followed when establishing the online learning environment for conduction of practical training courses. Some of them, naturally, apply to any distance delivered training, while others are profession-specific and prepare the Instructor to set-up the virtual teaching-learning space for the preparation of Cooks.

## 2.1. Outline the course's learning components (units/lessons, texts, instructions, video presentations, readings, external links, assessment, tests, etc.)

One of the benefits of the online training is to make available to the student a large amount of information. But the simple fact of having large information bases, by itself, does not mean the generation or acquisition of knowledge and/or skills. It is necessary to incorporate it into a programmed action, structured and organized in such a way as to ensure the active participation of the student.

Another benefit is to adapt the training to the rhythms and needs of the students, to enhance personal development and significantly facilitate access to information. Individual learning paths can be designed with multimedia. The learner can even participate in the design of his or her learning plan and process. These benefits have to be taken into account during the preparation of the modules/units and methodological tools in order to ensure the student's participation and personalized learning process.

In order to outline the training course's learning components for online training, we first need to understand a few key concepts: what we will use (didactic means), how we will use it (didactic methodologies) and how we will make sure that the selected learning components will ensure the student's active participation.

When preparing cooks, we could classify the **didactic means** as:

a) Direct experiential resources - the real objects that are included in any moment of the didactic act, inside and outside the classroom/kitchen, that serve as direct experience to the student. These can range from a company (that can be visited online), to objects of any type that the teacher considers useful to enrich the activities, improve motivation, the meaning of contents, the retention of what has been learned, and evaluation. The most common in this section in occupational

training are: the facilities, machines and objects of all kinds that bring reality closer to the student.

b) Structural resources or specialized for the profession - those that form a part of the own facilities of the training provider, their purpose is to provide environment for learning and collaboration in the teaching processes: laboratories, kitchen software, hardware and kitchen equipment in general: appliances, utensils. In the case of the virtual practical training for cooks, the students will be able to explore their own inventory and available items.

c) Symbolic resources through symbols or images.

The **didactic methodology** for the online training can be classified according to the imparting mode as synchronous or asynchronous communication:

- the synchronous communication includes: Video-conferencing, Electronic Whiteboard, Chat or Instant Messaging and shared Browsing;
- the asynchronous communication includes: e-mailing, discussion forum, helpdesk or surveys, etc.

Respectively, according to the applied didactic methodology and the chosen didactic means, the following course learning components may be prepared or modified:

| | *Synchronous mode* | *Asynchronous mode* |
|---|---|---|
| Units/Lessons | They will deliver a particular training contents, but defined in specific time-frame for one or more online sessions with the Instructor. These are usually guided by a Trainer or Instructor. | They will deliver a particular training contents that will be explored by the student in self-learning mode (independent learning). These are usually not guided by a Trainer or Instructor. |
| Texts / Readings / External Links | When in synchronous mode, the information consisting of text can be delivered as a verbal lecture, presentation or by sharing text file for reading on the screen. | When in asynchronous mode, the information consisting of text is usually uploaded or made accessible in other way or the learner to open/download and read independently. |
| Instructions | Usually verbal or written instructions by the leading Instructor given in real time to the students | Usually written instructions by the leading Instructor given in real time to the students |
| Video-demonstrations | When in live video-conference connection, these are implemented by the Instructor in real time (virtual practice). When no video-connection – can be shared as links for pre-recorded video-demonstrations. | Similar to synchronous mode without established online connection, video-demos can be shared as links for pre-recorded video-demonstrations. |
| Exercises / Tests | Implemented in real time tasks to master a certain skill | They require a written instruction to be provided to |

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| | or set of skills. Usually planned within a certain time—frame. | the students describing the task/s and expected results. A deadline/time-frame can also be established. |
|---|---|---|
| Assessment | In synchronous mode assessments can be organized as a virtual practical exams, quizzes with set starting hour and date, online seminars or presentations, group projects, etc. | In synchronous mode assessments can take the form of quizzes available on the platform, |

The list is not exhaustive and other components can be added in it and adjusted as to the chosen didactic methodologies and means.

## 2.2. Define requirements for delivery of the learning components in distance mode:

When you are about to define the requirements for delivery of the learning components in distance mode there are several key parameters to be analyzed and set-up:

– training base/site (facilities; training kitchen; home kitchen, etc.) and equipment;
– technology;
– means for trainer-trainee interaction.

### *Training base/site and equipment*

There are some requirements which should be taken into account so as to the site and the equipment when we speak about practical training in the profession of Cook:

A. *At the VET provider:*

When using training kitchen (facilities) for conduction of a (virtual) training practice, meaning that the Instructor needs to consider the following:

1) Ensure the necessary space according to the activity. The room from which the trainer is teaching should allow for his mobility since the cooking learning activity requires movement. But on the contrary, if there are activities where the trainer hardly moves from his seat, a large space makes attention difficult and will create dispersion in the group that is following the streaming. So scale-up/down the visible screen for video-conferencing to the needed area and make sure all processes are visible (multiple cameras might be used if needed to show different angle). Same principle applies when video-recording culinary demonstration for distance learning.

2) Improve lighting and acoustics. The distribution of light, whether natural or artificial, can condition the attention and fatigue of the participants and may help or restrain their comprehension of the steps in cooking activity if they cannot see well enough the trainer. Large, low windows can cause distraction and discomfort if the sun reflects on the screen. Additional (professional) lighting from several sources should be considered when shooting/streaming from darker premises (avoiding shadows to fall upon important areas when action is happening). Acoustic aspects should not be forgotten either, especially when dealing with sessions with a large number of participants and since the internet connection with microphones muted or not can interfere negatively. Visibility and acoustics are also important when working from kitchen and using ventilation systems that may cause constant noise when turned on, while turning them off may cause the steam from cooking to interfere the picture. These should be altered as needed (power on/off or scaled)

as to the activities to be performed in the particular session (off when Instructor is speaking, on when cooking activities are implemented, etc.).

3) Special care with the arrangement of the material. Another aspect to establish beforehand is to think about the ideal place to expose the utensils and equipment to be used during the sessions. Visibility and audibility must be good for all attendees.

### B. _At the trainees' home:_

Similar principles apply also here. The difference is that at the student's home the layout is not tailored to support learning activities, thus the learning environment will vary dramatically from one learner to another. Alignment or standardization of the conditions is not possible in this case, but the Instructor should make sure that the student has at his/her disposal at least the minimum set of equipment, tools, appliances and utensils to implement the tasks for the lesson/module. For this, a list of the needed (minimum) technical assurance should be communicated before each session (e.g. one stove with 2 cooking ranges and an oven with opportunity to control the heating temperature; 1 working table of stainless steel or work top from marble/kitchen top cover minimum 60*90 cm.; 1 mixer, 1 bowl, etc.)

Detailed instructions should be given to the students also when they have the task or assignment to picture/film themselves while implementing their tasks, e.g. minimum quality of pictures (in pixels or size), minimum duration of video, position of the camera (distance from the action, lighting), contents of the video, audio instructions, etc.

### Technology and means for trainer-trainee interaction

So as to the technology used for accommodating an online course in distance mode, the most effective solution would be to use a **Learning Management System (LMS)** to create and sustain the course and to manage the teaching-learning process. A variety of such LMSs already exists on Internet, some are paid, other are offered for free to specific type of users (e.g. designed for and provided to schools, VET providers, universities, etc.) or to the wide audience in general. All LMSs or e-learning platforms have different features, functions and capabilities.

In this task to define the technology that will be used for the provision of your course as well as to determine the means of interaction of the main actors in the process, we suggest you to follow the next steps:

1. Research and analyze the available technological solutions within your organization or on the market:
    - Is there an e-learning platform already used/purchased by the organization? If yes - is it limited to particular courses' provision or could be upgraded/adjusted for your purposes?;
    - If there is no such platform within your organization – is there a possibility to purchase or develop such? Check and discuss with the management and IT experts possible technical solutions;
2. Choose the technological solution based on the analysis and resources available defined above. Motivate your choice based on:
    - functionalities point of view – what the platform allows in terms of functionalities and if it meets your needs: does it allows for integration of different types of contents – texts, images, videos, etc.; is there e-assessment option; does it allow for sustaining of virtual meetings/sessions; does it allow for multi-level communication and exchange; what communication channels it sustains, etc.;

- users' point of view – assess the accessibility of the platform from student's point of view: well-structured and easy to orient and navigate; user friendly layouts; opportunity for immediate feedback upon submission of assignment; communication channels with the Instructors, etc.);
3. Analyze the available training resources within the organization – are they enough to cover all aspects of the training, do you need to develop more, what format (file types) are they and are they compatible with the chosen platform (LMS), etc.

After implementing these steps, you should have a clarity of the technologies that will be used, respectively you should be able to define the technical parameters (minimum requirements) and obtain the platform that will host your course. Of course you can try to organize online training with different existing and accessible software and applications that allow for most of the functionalities of a LMS, but this may lead to a dispersion of the training content, impossibility to monitor the teaching and learning process, technical shortages in implementation of different activities, etc. Our best suggestion is to combine an LMS with existing applications and possibilities to deliver optimal experience. For example, as it is in VET@HOME LMS, the recorded video-demos are quite substantial in volume, thus they are hosted in external cloud and embedded in the platform.

Once having the e-learning platform established there is another very important step that needs to be implemented:

4) Train the trainers

Different Online Learning Modalities were being used by different governments and institutions in order to continue the learning process during COVID-19 pandemic. The feedback for5m this period outlines as one of the main problems and challenges (in both public and private school) that the teachers face difficulties in utilizing online and modular learning modality. This is because they were urged to use different platforms without the proper preparation and training in competences related to operating online platforms and their management.

Thus, the VET providers should ensure that the trainers are prepared to conduct the online training /streaming and know how to use software in the best way possible to effectively perform their tasks, avoid interruptions and guarantee that the students receive the best quality training possible.

## 2.3. Ensure the technical ability to conduct the course online or in blended learning

One of the key challenge shared in response to the research and surveys implemented within the VET@HOME project was the connectivity issues. Sometimes these were related to the poor or not enough quality of the Internet connection, which is absolutely essential for conduction of an online training at first place.

In this case especially in cooking classes, the trainer should ensure that the internet connection is stable so as not to be paused by it and have to repeat certain phrases, especially during cooking activity, since some steps cannot be repeated (for example, once he puts the needed amount of flour in the pot, he cannot repeat that step without altering the recipe).

The same caution has to be concerning the microphones and muting/unmuting them since during the performance of a recipe, it will be difficult for the trainer to have to also check the microphones of the students if some are unmute and disturb the trainer's course.

Another considerable challenge experienced by the trainers are the scarce resources of the students in terms of technical assurance of the educational process. Not all students have or can afford themselves to buy the needed equipment for online training – usually it requires high quality video and audio recording communication device (computer or laptop,

notebook, video camera, microphone, headphones or speakers, specialized software, etc.). What is important here is to provide in advance information to the learners what type of equipment will be needed for participating and sustaining the online training (minimum parameters) and to make sure that it is obtained or to research options to provide the students with the needed equipment in case they cannot obtain it themselves.

## 2.4. Ensure consistency through course design

There is, one important element that we would like to highlight here and which influence the effectiveness of the learning process – and this is the **course design** in terms of style and presentation in the digital environment.

The first stage of development of the technical part is in the hands of computer and communications technicians. The weak point comes at the moment of defining the fields of action of each actor. When the technicians also develop the methodological part themselves, we find structured systems such as databases, file trees, etc. In other words, they also develop here their valid schemes for software development. We can say that their priority objective is the system, the speed of access, file compatibility, etc. It is necessary to educate them in the priority of the learning process. The solution is to involve the experts in each area in the new experiences. So whenever there is an opportunity for you as creator of a course to interfere or support the design process of the technical environment, we strongly advise you to do so. Since we speak of planning and executing of the course appearance online, here is a set of guidelines that might support you when you select the course style, theme or even context in which you will provide the training:

- the page/platform where the online training is provided should have a page design that aligns with its purpose and scope and gives idea of the training character and context;
- keep consistent visual design – same/similar graphic elements for same/similar functions or type of contents;
- make sure the structure of the course is well organized in units/folders/tabs;
- prepare a navigation guide/orientation materials or short tutorial (if needed);
- stylized headings provide structure and organization for the content and make it accessible to screen readers and easier to read in general;
- the course design elements can facilitate the instructional strategies. You may use same or similar design elements (sections, units, boxes, tables, etc.) to outline the structure of the course or to highlight specific learning outcomes;
- graphic design elements can convey meaning (such as icons, boxes, colors – to distinguish different chapters/areas/topics, etc.);
- stylized boxes are suitable to be used for reminders or insertion of important information;
- stylized tables, charts, and lists make the content easier to read and use;
- colours and images help the learner engage with the materials;
- provision for accessibility features such as image descriptions and transcripts for videos.

## 3. Delivering an online-based practical training

## 3.1 Get to know your trainees - group and individual learning

It is important to consider that students learn in different ways depending on their previous experiences, their interests and their current situation. Likewise, the way they learn, their learning style, etc., is very important. The success of the activities (in group or individual) depends on the knowledge of these variables: of the students' needs and the detection of the students' learning needs is the starting point for the development of an effective training program.

It is essential to have the maximum knowledge about the initial situation to be able to design and carry out the programming of the information that will allow reaching the final situation.

We will list some considerations regarding the knowledge of the learners, since it allows the trainer to motivate them, and this will increase the effort. For example, citing real examples close to the learners' interests may improve their performance.

Learners' needs are also governed by Maslow's pyramid of needs a we know it:

- Physiological
- Safety
- Social
- Self-esteem
- Self-realization.

Understanding the learners' needs is of utmost importance because it allows adjusting the objectives, the methodology and the means to the students. This analysis is an essential reference point also for evaluation.

Strategies and techniques that can be used for better knowing of the learners:

- requesting them to send a CV at enrollment for the course;
- asking them to fill in a questionnaire with pre-defined questions exploring their background, expectations, etc.;
- conducting a personal (incl. online) interview or
- presentation of students as a strategy - students to introduce themselves to all the class and give the most relevant information about themselves - in order to identify the frame of reference of the learners, their interest in doing the course which will help the trainer adapt the activities according to it.

### 3.2. Keep in close contact, use the guided training sessions (video-conference) for keep track on the learners' progress

In order to keep a close contact with the students, the trainer should take into account the non-verbal communication: his/her own and the trainee's.

There is a "silent" language, non-verbal signs that the trainer and the trainees exchange without being aware of it most of the time. This language also informs about how the trainee and the trainer experience the session. So, as a trainer, you should be aware that you exert a strong influence on the pedagogical relationship through the use (or non-use) of a set of non-verbal means, such as:

- The voice (intonation, fluctuation, low, high-pitched...);
- Elocution (slow, fast, choppy...);
- Space (standing still, moving, approaching students...);
- Gestures (inviting to speak or to remain silent with a hand gesture, pointing with the finger, arms raised...);
- Eyes and gaze (looking into the void, staring, concentrating on your notes...);
- The mimics of the face (arching the eyebrows, frowning, smiling...);
- Documents (reading class notes, distributing pedagogical documents...);
- The lights (bright, dim, too many, too few...); The lights (bright, dim, too many, too few...).

But as trainer, you should be able to see the non-verbal language of your students and know how to interpret it, since learners show their reactions to the pedagogical message by means of numerous signs, such as:

- attention: body posture (leaning forward, backward...);

- the need to speak: subtle movements of the mouth, of the hand....;
- irritation: movement of the hands, manipulation of objects on the table....;
- disinterest: closing books, tidying up documents, looking into the void, yawning, closing eyes....;
- disagreement: head movements, abrupt gestures....;
- tiredness: slumped body....;
- surprise: raising arms...

Try to keep in contact with your students as much as possible, use for this the meetings in the blended delivery mode or the video-conference sessions. Of great importance are the emotions, knowledge, expectations and interests of the learners, as they will influence the perception of the message. Moreover, the feedback will help you as teacher ensure that the learner got the message.

In order to enhance learning, it is particularly important to understand what motivates learners. Motivation can be understood as the processes involved in the activation, orientation and maintenance of behavior. Since it cannot be observed directly, it must be perceived from various indicators and the contact with the learners provide you with such opportunity.

The fundamental idea is that "people learn what they are rewarded for". This is why "reinforcement" is so important. Any stimulus that follows a response is reinforcing if it increases the probability that this behavior will occur in the future. Reinforces can be internal or external, depending on whether the reinforcement is the behavior itself, or whether it is a subsequent reward that is not part of the person's behavior.

## 3.3. Provide options for peer-to-peer interaction

Several studies show the best results of students who work in groups or cooperate with their peers. The integration of the student in a work group facilitates learning and mutual help, encouraging motivation and the resolution of doubts. New organizational structures emphasize the importance of teamwork and the ability to integrate through active participation. Therefore, new social and work requirements demand creative, verbal and written communication, critical thinking and teamwork skills. These skills need to be fostered in addition to subject knowledge.

Thus, it is logical to think that in quite a few subjects less time is allocated to the lecture and more to group methods and individual work, considering teachers as team leaders. But what is happening when all these communication flows are transferred to online environment?

The level of participation of the group is influenced by:

- The number of members: from 5 to 10 students favor participation.
- The degree of maturity of the group: the greater the maturity, the greater the participation.
- The organization of the session: preparation, clear objectives, etc.
- The quality of the conduction of the sessions by the Instructor.

There are distinctive characteristics of group learning:

- The learner has a more active attitude.
- Learning is richer because the critical sense is stimulated.
- There is a commitment to the objectives.
- There is a personal enrichment due to the amalgam of experiences of the group.
- There are a series of personal relationships that also enrich the members of the group.

We can list some group dynamics techniques: *Case studies, Role playing, Brainstorming, Guided debate* or *Focus Groups*. All these can be organized by creating different groups online, in different "online rooms". In addition, technological solutions are available that provide communication and collaboration opportunities for the students. Many platforms utilize chats, discussion boards or forums, messaging systems, closed/opened virtual rooms, etc. Take advantage of all these tools in order to facilitate dialogue and questions about the course.

For example, you can provide structured discussion board (or other peer-to-peer interaction) prompts that encourage students to learn from each other and ask questions of the Instructor. In some LMS, instructors can subscribe to these forums to receive notifications when posts are added. This open forum allows the instructor and students to assist each other in an open, welcoming online learning environment. Students likely will have questions about the course, and if there is not an accepting forum for those questions, they will likely not be asked at all.

### 3.4. Give clear instructions and assignments

The importance of a well-structured e-learning platform has its climax when it comes to the instructions and assignments since the evaluation of the student depends on his/her performing the assignments. So, giving clear instructions is crucial, but being able to include them in an interactive calendar within the platform, which could provide reminders to the students for the due-dates, can be a very positive use of the e-learning platform and a real help for the students.

The trainers should make as clear as possible and as widespread as possible the methodology and assignments, thus publishing them on the e-learning platform so that the students can access and consult them anytime. In the next chapter we focus more on the evaluation and assessment but here we would like to mention at least the minimum details that need to be communicated to the students in advance: due date (standardize due dates), way of delivery (uploaded in the platform, shared, sent via email, etc.), evaluation grid or methodology should be known to the students.

### 3.5. Give feedback

New online methodologies also imply new forms of evaluation of results for the students. So, when evaluating their results (or even when assessing the current performance), the trainers have to give more credit to their skills and attitudes by not focusing only on the amount of information, or exclusively memoristic aspects. For this, students must experiment, work in groups, discuss on an equal basis with their peers and teachers and receive the feed-back from the teacher regarding their implication in collaborative tasks, regarding their evaluations and assignment performance.

Providing students with Substantial and individualized feedback allows the Instructor another avenue to frequently communicate with students to praise work and offer suggestions for improvement not visible through points or percentages alone. Detailed feedback can be manageable if a standard feedback comment is drafted, then personalized based on the work of each student.

The more regular and meaningful the feed-back is, will impact more on the student's improvement and will help her/him reorient his/her progress if it's not enough or will help her/him towards an even more positive evolution.

### 3.6. Define rules/norms

First as a governor of the course, you need to define the rules, meaning not only to set expectations and indicators for the students' performance as learners in the course, but

also to define norms of behavior and participation. It is strongly advisable in this regard to make sure that the students understand all the roles of the key actors in he course: students, instructors, VET providing institution, etc. as this might be done by providing them written explanation of the rights, obligations and responsibilities of all parties in the process (if not done in the training contract, if the case).

Then you should make sure that you established a safe learning environment online, by defining limits and boundaries and setting the rules under which the learners will treat each other.

Here are some tips to help with the process:

- set rules for creating and maintaining a safe and respectful learning space and make sure all students accept the conditions;
- ensure the online safety, consider the Privacy and elaborate or adopt relevant documents (if needed);
- encourage tolerance and patience;
- moderate conflicts if such arise in a fair and transparent way.

## 4. Evaluation and assessment of the training

### 4.1. Prepare the learners for the final evaluation

Assessment is the process of collecting evidence/proof of performance criteria achievement and making judgements on whether competence (or defined learning outcome) has been acquired. Evidence could vary in form and could be collected with different methods and from different sources, depending on the subjects covered in the different courses. It confirms if the learner is able to perform according to the defined in all of these virtual practical training courses evaluation criteria. Applying assessments to online courses is necessary both to test the student and the effectiveness of the classes and applied teaching methods.

The assessment methods and tools should be planned early in the design phase of the course, as explained in the previous chapters, it's even best if these are defined and structured after the definition of the learning outcomes of the course and before the selection of the learning activities.

There could be many types of assessments for online courses, however in practical virtual courses for the profession of Cook we recommend:

> **Formative/ongoing assessments:**

This type of evaluation is more immediate and takes place at the end of each unit/module of the course. This can also be a group of thematically connected lessons that form a learning outcome as to the course syllabus. The purpose of this method is to support learning and provide quick feedback to the student/trainee on how well they understood that lesson/s or topic in the course. In this case the online quizzes are very handy. The test is designed in a simple way, through a few questions about what was taught. Another option is to give the student individual/group assignment that will be evaluated by the Instructor with or without reflection in the final assessment and grade of the course.

Other possible methods are: assessment of the participation of the student in group discussions or exercises; individual or group project/presentation on a certain topic; case study or research task and reporting, etc.

> **Summative/final assessments:**

Applied after the end of the course, it can work by doing a final practical exam, or other activity/task that the Instructor considers important and enough to evidence the achievement of the performance indicators and learning outcomes as defined in the course syllabus.

For final evaluation, several tools may be chosen on the basis of the selected assessment method and usually are described in a document/material containing both - the instruments and the guidelines/instructions needed for the collection and interpretation of the evidence.

The trainer can give the trainers the possibility to do:

- A final project related to the course and demonstrating the achievement of LOs (for example, the final exam can be for the student to film a video tutorial in which s/he implements a recipe/a technique while explaining the processes, steps and actions);

- A live demonstration – organized online in front of examiner/s via video-conference connection (e.g. prepare a main dish, where all the steps leading to the final product are visible);

- Other.

Of course, combinations of both the mentioned types are also widely used when the training is conducted in the VET providing institutions. For example, the students in the vocational/professional high schools are evaluated constantly in different subjects and receive grades that are recorded in the year books. At the same time, in order to receive their successful graduation and qualification documents (usually a diploma) they need to also hold a final exam (in theory and practice of the profession). In the adult learning the examination is organized in a different way, but in all cases it depends of the state/legislation requirements and rules established for the particular country or VET providing entities. That's why here we give only ideas and examples, but the organization of the assessment of the online delivered practical courses should follow the requirements set by the authorities in order for someone to receive a qualification.

An example of a combined scheme using different methods and their relative weight in the final evaluation could be:

- Participate (actively) in discussions held on digital platforms (10%)

- Assessment of assignment for individual preparation of a dish, given during the course duration – implemented individually by the student (at home), filmed by him/her and sent/uploaded for evaluation from the Instructor (10%)

- Participation and performance during virtual practice lessons (delivered online by Instructor in real time) (10%)

Final practical exam (organized online in live-connection with examiner/s) (70%).

## 4.2. Provide the learners with evaluation grid or methodology

The assessment method for each course you create depends on the defined learning objectives. Respectively in the evaluation of the students' progress and succession in a course various assessment methods and tools could be applied. In any case, the learners should have access to clear information consisting of at least:

- The assessment method/s for the course – description of the defined/chosen methods, when they will take place (ongoing, at the end of the module/course), performance criteria (what needs to be demonstrated by the student in order to pass or receive a particular grade/mark);

- Duration of each assessment method, as well as mode of organization and conduction (online - in distant learning mode, or on-site - in blended learning mode);

- Weighting of assessment methods (optional, if different assessment methods are combined in order to form the final grade of the student upon completion of the course);

-   For each assessment method, also description of the conditions under which it is conducted (environment, tools, resources needed, etc.).

## 4.3. Give additional instructions if needed

In summary, the evaluation is based on the activities proposed in each module, which may consist of oral questions, diversified e-activities (interactive content, practical exercises, training activities, etc.), assignments or tests, etc. For each of them the Instructor need to prepare written instructions in advance that need to be communicated to the students before each assessment activity, or best – at the start of the course.

Still, it is important to provide very detailed instructions to the students in advance, not only about the evaluation methodology and technical organization of the practical examination, but also regarding the health and safety rules and principles to be observed during the examination process (like in the training process). In the case of an online assessment these instructions can be given in writing and/or oral – for example before the virtual practical exam starts, the Instructor to present the requirements and to make sure that the student understands and accepts the terms.

After the organization of several exams, it is recommended to analyze where in the preparation the students make mistakes or fail to perform and to focus there by development and delivery of additional instructions.

## 4.4. Use the platform's options for e-assessment or blended mode

Here the Instructor creating the course also have several options depending on the delivery mode of the training: only online (distant) or blended with in-presence classes.

When the entire course takes place in an online distance learning regime, the Instructor may use the e–assessment functionalities of the LMS as it allows. For example, these could be:

-   online **quizzes** (pre-programmed with a pool of questions, defined correct answers, points or other marks assigned to each question/quiz, etc.). This assessment method allows for immediate evaluation and feedback to the student and is relatively quick and easy to be implemented.
-   **assessment of assignments** – this method can be used in a virtual teaching environment both as an ongoing assessment and also as final assessment – to replace an exam or to be combined with such. In the case, the Instructor can use the LMS to give the assignment (provide written instructions, define period for individual/group work, define deadline for submission of the student's work, provide information of the weight/importance of the assessment of the assignment in the final grade, etc.). The use of a LMS in this case will facilitate the information accessible to the student in his/her preparation of the assignment, as well as will evidence the exact moment of the submission (when unloaded in the platform by the student, is it within the designated deadline) and will record the contents (the platform will usually keep the file/s with the student's work, so in case of need of additional review, it will be accessible there). This method supposes for personal engagement of the Instructor to check, review and assess the student's work and to provide feedback to the student upon completion of the evaluation.
-   Organization of **virtual (practical) exams** – even though this is more complicated to be organized (from technical point of view), this method is closest to the real conditions of the VET systems and the state requirements for the conduction of practical exams. In most countries across EU, the organization of practical exam is allowed only in in-presence mode of both student and Instructor or examination board/jury. It is considered critical for the quality of performance and also for the transparency and fairness of the evaluation process that the student performs

individually in front of the examiner/s. In some countries there is even a requirement for the whole examination process to be filmed and recorded. These requirements (or at least most of them) could be fulfilled also in an online environment, e.g. the performance of the student in real time in front of the examiner/s could be assured via video-conference connection (synchronous), the actions and processes implemented by the student could be observed closely by the examiners through the video streamed from the student's (or other alternative) kitchen

Here are some important aspects to be considered when organizing a **virtual practical exam for the profession of Cook:**

1. A list of the necessary equipment (with minimum technical parameters), tools, utensils, as well as products (with quantities), should be provided in advance to the student and the VET provider should make sure that the student have the needed time and resources to prepare them for the exam.

This makes it hard for the VET provider to follow the legislation which usually requires the student or the examiner to draw a ticket from a pre-prepared set of exam tickets with the task to be executed during the practical exams. This is because the student needs to know in advance the recipe s/he is about to perform in order to obtain the equipment and ingredients for it. In this sense, the virtual practical exam cannot ensure a wide range of exam tickets to be prepared. Still the student could perform tasks related to cooking techniques instead of (or while) preparing recipes, and for this the virtual examination is an acceptable alternative.

2. Instructions regarding the technical assurance shell be given also in advance, for example: what is the scope of the area that should be visible for the examiner/s during the exam (the student's camera should show: the worktop, the stove, the sink, the table, etc.); what should be the camera layout (vertically/horizontally positioned); what is the minimum quality of the video shooting (e.g. min. no. of pixels).

3. Constant Internet connection should be ensured from both sides (and protocols in case of interruption shell be drafted, e.g. if the connection is broken during the exam, several attempts for reconnection shell be made immediately, and if it is not possible to restore it, the exam can be canceled and rescheduled).

4. This form of examination is suitable for individual exams, or for small groups of students (up to 3 people at the same time), because the examiner/s will not be able to observe the whole working process of all students simultaneously and this may lead to distortion of the judgment.

5. In the performance criteria set for the practical exams for the profession of Cook there are also some that cannot be evidenced in virtual environment, such as the taste of the final dish, texture of the different components of the dish, aroma, etc. In this case the final product of the student's work can be evaluated based on the close observation of the working process (for example, are the exact quantities of the different ingredients used, is the correct cooking temperature or procedure for this techniques strictly observed, etc.). This requires the examiner/s to be very experienced in the profession, so they may estimate the final dish only by seeing the preparation process. On the other hand, this will also mean that the state requirements for the final practical exams for Cook shell be more flexible in case of online mode of conduction, particularly towards the assessment criteria that are impossible or hard to be evidenced via distant examination.

6. A bilateral connection shell be established, so that both student and examiners can communicate freely during the exam – the student to be able to explain his/her actions in

the process, and the examiner/s to be able to ask questions, ask for more detailed view of a certain part/process, request presentation, etc.

### 4.5. Give feedback to the learners on the results achieved

At the end of each course or after carrying out the different assessment moments, the student/trainee will be informed of the results of the evaluation. In the case of distant delivery mode of the course, this may happen through the e-learning platform where the student may find: the results from the tests and quizzes completed online – immediately after submission if the quiz is pre-programed to send results, or after evaluation by Instructor – sent to the student's mailbox/profile; the results from the assignments that are intended for assessment – after overview from the Instructor and results communicated back to the student through the communication channels established in the LMS, usually together with feedback/reference from the Instructor; the results from the final (virtual) exam/s – when completed and student performance is assessed by the examiner/s according to the pre-defined criteria. It is highly recommended when choosing the e-learning platform to consider the opportunity for the student to be able to consult his/her grade and to compare his/her own the performance to the performance indicators set in the assessment methodology.

### 4.6. Organize the certification of the successfully completed course

Naturally, upon the successfully completion of training the student/trainee should be awarded with a document evidencing its accomplishment. This also should apply in case of course/s delivered in a distant mode.

The certificate should indicate as a minimum:

- the type of document (e.g. certificate, diploma, other type – according to the legislation)
- the title of the course
- the name of the graduate (some other data such as date of birth, address, etc. shell be handled with care and placed only if the providing organization is registered administrator of personal data, or if required by law or other act)
- The course duration / period of training
- Information if the course is for acquiring (partial) qualification and for which profession/specialty (according to the VET legislation in the respective country)
- the workload of the course (and its units/modules, if the case)
- information that the course (or part of it, in case of blended training) was delivered online / in distant learning mode
- (final) grades on the exams (if this is required by the regulations/legislation in the respective country, as well as in view of recognition and validation of the learning).

Other data could also be included in the document evidencing the completion of the course according to the specific requirements imposed by the regulatory acts in the particular country. Most of the LMS allow for the automatic or manual issue of the certificates since the data needed for completion of the documents is already inserted in the systems. Hence, the type, form and way of generation/creation of the documents should be decided within the course design phase and details shell be communicated to the students upon the course start.

As mentioned in the beginning of this document, the VEY@HOME project is aimed at providing a model syllabus as well as an approach (described in this protocol) towards the delivery of virtual practical training course. The next table presents a summary and comparison of the key parameters and differences outlined for the delivery of such course only **online** and in **blended delivery mode** (online + in-person sessions). The features listed therein may be adjusted as to the needs of the training.

| Course Delivery Mode | Blended | Online |
|---|---|---|
| **Design Philosophy** | A blending of in-person and online activities designed and facilitated by the instructor. The online activities build upon what students learn in person and contribute to the achievement of the course learning outcomes. Instructional design and media support may be required as online activities increase and scheduled in-person class time decreases. Students are expected to take more responsibility for their learning. Students might be asked to participate in the online scheduled in-person class sessions. They must complete the in-person and online learning activities as designated by the instructor. | Designed by the instructor with support of a technical specialist/s for programming the used e-learning technology. Various assessment, learning activities, instructional strategies, and technologies are considered to facilitate a meaningful, self-directed learning experience. Students are expected to be self-directed with regular check-ins by instructor. This entails logging into their course site regularly to stay connected and scheduling time to complete assigned activities and assessment. |
| **Definition** | A blend of in-person and online learning activities. Students and instructor meet regularly at scheduled times. For online activities, students and instructor engage asynchronously or meet synchronously (e.g., attending online seminars). | Delivered entirely through the Internet. Instructor and students engage in activities at different times from different locations (asynchronously). Some online courses contain synchronous learning activities (e.g., student presentations, virtual practice, etc.). |
| **Class meeting Times:** | Dates and times listed and differentiated by in-person meetings with fixed date, time and place and online meetings. Course materials and activities can also be delivered asynchronously (e.g., recorded lectures). | Primarily asynchronous with no dates and times scheduled. Attendance is required for some online synchronous meetings scheduled by the instructor (e.g., course welcome/ orientation/virtual practice). |
| **Location:** | In-person and online component facilitated through an e-learning platform (e.g. LMS, web conferencing systems, etc.). | Online, facilitated through the facilitated through an e-learning platform (e.g. LMS, web conferencing systems, etc.). |
| **Exams:** | When the case, invigilated exams completed in-person at a scheduled date and time. | When used, invigilated exams completed online or at an examination center/VET provider's facilities; dependent on student's location and coordinated by the VET provider. |

| | | |
|---|---|---|
| **Syllabus planning and availability** | The course syllabus and schedule of when and where students will access content and engage in learning activities are provided to students at the course begining. | Fully developed in learning management system at the start of the course. |
| **Student Preparedness (Technology)** | Students may be less technologically prepared, with access to a mobile device only and limited connectivity in their homes. Instructional planning should reflect these limitations. | Students know from the onset that all instruction will happen online, so likely have access to the technology that enable them to actively engage in the learning experience. |
| **Learning Management System (LMS) Use** | In addition to general use of LMS, utilize advanced features and tools to organize and sequence course content, facilitate online activities, and extend the in-person learning community. | General use of LMS to communicate with students, relay course content, and administer assessments and grades.<br>May use other features of LMS for group work (e.g., discussion forums, peer scholar, etc.)<br>Advanced use of tools and components to deliver course content and facilitate social interaction of class and learning activities. |
| **Instructor Presence** | Provides direct instruction and facilitates an inclusive learning environment that encourages a sense of community for both the on-site and online environment.<br>Regularly connects with students through web-based tools. | Instructor facilitates and guides student learning by providing clear directions; modelling appropriate netiquette; sharing their experiences, monitoring progress; and giving students feedback on their work. |
| **Interactions with Classmates** | Instructor designs and manages interactions in both the in-person and online learning environment.<br>May include peer and group activities. | Interaction built into learning activities; addition of defined spaces within the learning environment for social interaction. May include peer and group activities. |

# GUIDEBOOK

## 1. Manual on how to apply the VET@HOME platform in real training processes

*One of the main purposes of the Guidebook is to introduce the trainers and educators to the VET@HOME e-learning platform that allows for the online delivery of practical training for Cook through a set of selected modules (courses) aimed at building in the learners' skills and competences.*

*Initially the platform was planned to accommodate the training contents and guide the students through 4 specific areas (preparation of soups, main dishes, salads and desserts). With the development of the platform and setting its functionalities, as well as following the assessment and analysis of the available OERs for practical training, the developing team and the Partners agreed to broaden the scope of the platform by grading and staging the accessibility of the learners through their qualification curriculum. Thus, some basic learning outcomes that ensure the safe and efficient practical training of the learners outside of the training kitchen were extracted from the 4 key topics and formed a fifth training unit (module) – Cooking basics. These learning outcomes were considered a must for the execution of each of the 4 key modules further and were designed to serve as a prerequisite for learners' enrolling in any of the 4 courses. By adding this basic course as mandatory entrance level for the rest of the education and qualification path of the learners, the Platform is ensuring the needed level of preparedness of the learners to implement the practical training independently in a distant mode, as well as is reinforcing the quality assurance and verification capabilities of the tool, in complete alignment with the regulation framework in Europe and in the respective countries of each partner.*

*Respectively, the first part of this guidebook is focused on the functioning of the developed within the project VET@HOME platform for virtual practical training and contains instructions that support trainers and tutors to operate in a virtual environment (in particular the one created within VET@HOME), and provides guidance for them to navigate learners/students for a legitimate and successful educational and qualification process.*

### 1.1. Technical description and explanation of the VET@HOME platform: components, processes, roles

**Structural Components of the VET@HOME platform**

**The learning management system (LMS)**

The LMS is basically the VET@HOME e-learning platform. It is a web-based virtual environment that: hosts the training resources, defines the roles and levels of access, provides online training, defines and manages the processes, keeps records of the activities carried out by the different actors, etc.

**Users and roles in the VET@HOME platform**

The VET@HOME platform (as all distance learning platforms) is designed for use by several different actors involved in the training and education process (all having the status of users in the platform with different roles):

- **teachers** (in this case considering the practical character of the training provided, as well as the possibility for self-learning or individual learning, they are called "*Instructors*");

- **learners** (in VET these may be adult learners or trainees in vocational training centers/entities, as well as students from vocational schools. Hence in the VET@HOME platform these users are called "*Students*");

- **administrators** (these are the people responsible for the technical maintenance and support of the platform, they have extended rights to modify its components and functionalities, to manage the other users and roles, etc.);

- **others** (the Platform provides options for assigning other roles to registered users, such as: *Contributors*, *Authors*, etc. – these roles have different levels of rights and access to the different Platform's sections and can be modified/assigned by the administrator as to the needs of the courses' providers).

All registered users of the platform are considered as "members". They appear in a list of all members accessible for the platform's administrators and can be filtered by their role and other criteria, as well as modified/edited by the administrator.

The platform is sustained and managed by administrators having all the access and rights to create/delete/modify all users and contents. The role of administrators is set at the responsibilities of the partner organization Leantick Ltd. (as a creator of the VET@HOME platform) and International College Ltd. (as a lead partner of the project).

Given the pilot character of the platform, for all project partners accounts have been created as instructors, in order to be able to create courses and upload their own training materials as explained in the next part.

### Registration in the VET@HOME Platform

#### Registration for Instructors

Registration of Instructors in the VET@HOME platform is done solely by the administrators of the platform. The administrators create an Instructor's account upon request by the project partners or by entities officially authorized by the partners to act as Instructors. This is done because of security and quality control reasons, since the instructors ones registered have the right to create and publish courses and/or training contents in the platform that becomes publicly available.

Once registered by administrator and after confirmation of the registration, the Instructors (trainers) do have a broader access to the platform functionalities. In order to explore or use their account, they need to log in from the Platform's landing page with the username and password created for them by the administrator.

After Log-in each Instructor can access his/her personal working dashboard field from the Setting button on his/her profile.
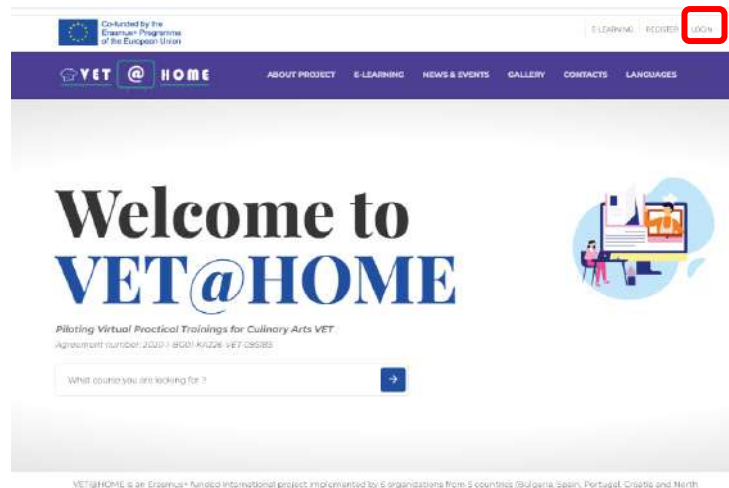
It is important to be mentioned that once registered an Instructor will appear at the frontend of the VET@HOME platform, as well as on the landing page of the VET@HOME website, in the "**Our Courses Providers**" section. Thus it's advisable when making the Instructor's registration, the name to be correctly formulated, and even better if the Instructor's account is named after the organization acting as a VET provider of the courses. In this way, the VET providing institution will be able to create and manage all courses offered by the entity (or to build a training portfolio in the platform), and at the same time, the users of the project website and platform will be able to select the courses they are interested in by exploring the VET provider's portfolio of courses. Another motive behind this is the certification functionality of the platform, since it allows for automatic/manual certification of the successfully completed courses by the learners, it is naturally expected that the certificate is issued by an organization (VET provider, following the respective legislation requirements), rather than a person (Instructor).

Further, the Instructor can access the account from the upper right corner of the screen by clicking on the name/title of the account and selecting "Settings" from the drop-down menu.
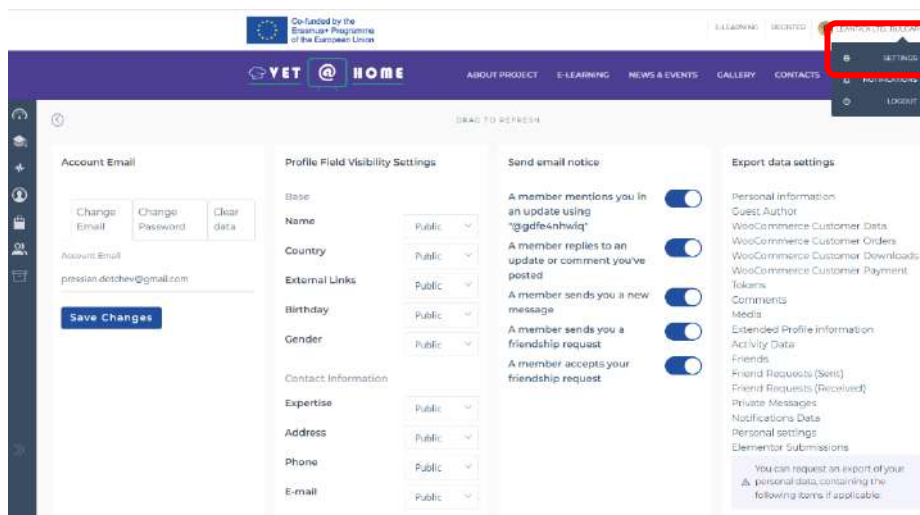


The main menu is located at the left side of the screen.
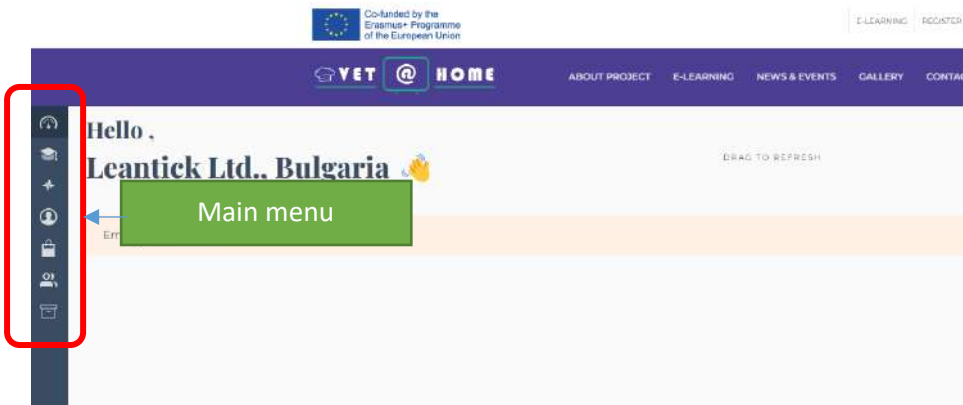
## Registration for Learners (Students)

For the needs of the VET@HOME project the registered users who are supposed to be trained with the help of the platform are defined as "students" in terms of their role in the platform. Still, these are all learners affiliated to the project and the project partners, including students in (vocational) high schools, trainees in VET courses, adult learners in VET centers, etc., or all interested in completing the VET@HOME courses and answering the entry requirements for enrolment in a course (as to the VET@HOME model syllabus-O1). Thus, further these will be called "learners" or "trainees" or "students", depending on the context but having the meaning of registered users with the role of a "student".

The learners need to make a self-registration to be able to enter the VET@HOME platform and access the training courses accommodated there. It's important that all instructors (or courses providers) guide their learners to start by initial registration on the homepage of the platform first (https://vet-at-home.eu).

For the registration process, the platform will require the learners to enter name and email address. It is highly recommended that the learners enter their full name as it appears in their ID documents, for two reasons: 1) this way the instructors will be able to identify them as physical persons and track their progress, and 2) in case of successful completion of a course, it will be requested for issuing the certificate.



Once completing the simple registration process, all registrants receive a verification email and need to confirm the link. By confirming through the email link, registration process is complete and students need to be navigated to access the system by login in button (upper right corner of the screen) every time they want to enter the platform. In this they will use the email for registration and the password they established.

Any other process of registration, initiated by the instructors or contributors will disturb the correct registration and consequently negatively affect the proper role of any registrant. Confusing the roles and the entry capacity of the students will affect their ability to access the training contents, follow the courses, and respectively - to be certified at the

end. At the same time, the instructors will not be able to monitor and effectively work with the student/learner(s).

Once registered the learners may modify their personal profile by adding additional information, such as profile picture, country of origin, background information, etc. These is to be guided by the Instructor/s as required by the course provider.

## Components of the VET@HOME Online Courses

*The VET@HOME courses accommodated on the e-learning platform may have different structure in terms of their components and appearance (the way they are presented for the final users – instructors and learners), still they are built out of components that are programmed in advance in the platform and may be selected and combined as to the syllabus of the courses, as well as modified.*

*The components of the VET@HOME platform are developed based on a research of the existing e-learning platforms for online delivery of training and their structures, following the best practices and good examples, as well as considering the needs identified by the research team that interviewed the project's stakeholders.*

*The components of the courses are functioning as "building blocks", they have obligatory character and also varieties that can be adjusted as to the needs of the courses providers. The platform allows for the instructors to choose from, to modify and to use the different components in delivering their online instruction.*

## Course Information

Every course at the VET@HOME platform has a separate page (once opened by a visitor) displaying the course information area designed to serve as a landing page of the particular course for informational and description purposes.  It contains important information about the course such as its title, what is the course about, detailed description, prerequisites for enrolling, duration (or start and end date), summary of the syllabus, etc. This area is **public**, meaning that its accessible for all visitors of the VET@HOME platform and does not need registration in order to be accessed. The aim is to provide to the interested people information that they need in order to understand the requirements and expectations in the course, as well as its main features. Explanation of the course information area is given below by its components.

Every course is defined by its **title** presenting the course's main topic and given by the instructor/course provider. It appears first when visualizing the course and is visible for all visitors of the platform (including not registered users). All courses appear with their titles and other (chosen by the instructors) parameters in the landing page of the e-learning platform in a directory called "**All courses**". There is also an option to filter the courses available on the platform by different predefined criteria (such as instructor/provider, no. of students, start date, etc.). In addition, the list of available courses can be arranged by several criteria (such as alphabetic order, recently added, popular, etc.).

There are two blocks that allow for providing opportunity to introduce information about every course uploaded and making it available for all visitors of the platform (including not registered users):

**_Short description of the course:_** This field allows for providing short information or introduction to the course and appears right to the course's title. Here the provider may describe what is the course about or some other important information (for example in this field for the VET@HOME courses the prerequisites for enrollment are listed).

**_Detailed Description of the Course:_** In this field there is opportunity to introduce more information about the course, the course's provider, the learning objectives of the course (tasks), the total duration, mode of delivery and other important aspects for the potential learners. It appears in the main body of the course's landing page.

Further the course information area gives insights about the course structure: a **summary of the course syllabus** with duration (timing) of its components (lessons or topics) is also visualized in the course landing page. The visitor may explore the course modules/topics and check the assessment and evaluation procedure as it is defined in the syllabus. The aim is to provide the potential learner with enough information so that s/he may decide to enroll in the course.

The course information area may contain also information about: course duration (in days, weeks, months, etc.), maximum number of students that can be enrolled in the course, start and end date, etc. – these are defined and introduced according to the specific requirements of the syllabus.

Here is an example of how a landing a page of a VET@HOME course looks like:

In case a given course need to be completed prior to the enrolment in another course, the platform also displays information here, on the course landing page, when instead of the button for starting/continuing the course there is a message displayed that there are obligatory courses/modules that need to be completed as a pre-requisite to start the chosen one.

The next components (sections) of the VET@HOME courses are already not publicly available and in order to see their contents, the learners must be registered in the platform, and must start the course to fully access its contents and the platform's functionalities.

**Communication Areas for Important Announcements and Instructor/Student Questions:**

Once enrolled in a course (by pressing the start button along the course title) the learner already has access to the course contents and details. A progress bar (right under the course title) measures (in percentages) his/her achievements along the course structure and duration.

Here, there is another page of the course displayed for the enrolled students displaying more details and the level of achievement of the learner in this particular course. While the *Overview* tab presents the detailed description of the curse, as explained above, the next tabs are representing the so called: communication area of the course, meaning the virtual environment in which the student and the instructor can exchange information, messages, discussions, etc.

### Announcements & News tab

In this tab the instructor may post important announcements and/or information that will be visible for the students in the particular course. This section is accessible only for the instructors and students may not write here.

The course announcements tab exists on the home page of a particular course and allows the instructor/course provider to relay timely information to the entire student roster. Announcements are course specific and are archived, so that students can see any past announcements they may have missed. Announcements that might be posted to this area may include changes to the course schedule, reminders of upcoming due dates, tips for preparing for exams and other course-related broadcasts.

### Questions (QnA)/Discussions tab

Here questions may be asked by the students, and being answered by the instructor. The space may also be used for initiation of discussions, writing comments, giving references, etc. It is designed to serve as a forum of the course and to keep all written communication exchanged among the key actors.

The discussion area is an important component of the communication area and especially when it comes to fully online courses offered at VET@HOME platform. Since in this mode instructor and students do not meet face-to-face, there is typically not much of an opportunity for real-time interaction on a regular basis. The discussion area within the VET@HOME LMS then provides an opportunity for asynchronous conversations in which one individual can post a message at one time and another individual can respond at a later date or time. Asynchronous discussion forums often lead to a very thoughtful and engaging exchange of ideas as students have time to think about and reflect on their response prior to posting. Asynchronous discussion forums also work to build class

community and contribute to creating a learning environment where students feel connected when they all may not be physically located in a single geographic area.

The area is monitored by the instructor/provider of the course. Since it is a public area (for the users engaged in this course: students and instructors), students can also see questions that have been posted and may be encouraged by the instructor to help other students.

### Notes

There is one more tab from the communication area named Notes that serves for a space for additional information. For example, here the instructor may publish course instructions and they will appear for the students when the start the course. The section allows for the upload of additional materials, such as text (files), images, media files, etc.

The nature of the communication that is agreed by the course provider and administrators will determine which of these tabs is appropriate to be located in the course communication area.

### Course Messages

The Course Message area of the LMS is a private area for communication between instructor and student.  The benefit of utilizing the internal course messaging within a course is that all interaction remains within the course and can be easily found and retrieved at a later date if needed.  This function is ideal when a student (or instructor) has a question or issue that needs attention that is not appropriate for posting in a public discussion area.

Here is an example of VET@HOME course home page and the communication area tabs:

Another additional tab that appears in the course home page (for the enrolled students) is again the summary of the syllabus under the tab Curriculum, but this time, the structure of the course comes with additional progress tracking function by visualizing the completed topics/lessons with green checkmark as it is visible on the picture below:



**Course Content (Modular Structure)**

In the VET@HOME Syllabus (Output 1) the 5 practical training courses are representing different **training modules** and each of them is designed to cover a set of intended learning outcomes that will allow the learners to achieve a certain level of competences needed for the implementation of the set of tasks and responsibilities linked to the particular training module. Thus, the Syllabus for practical training (for partial qualification) for the profession of Cook developed within the project is composed of **5 modules**.

Hence, when presented in the VET@HOME platform these modules (from O1-Syllabus) are called "**courses**" (from 1 to 5) as follows:

- Course 1 – Cooking basics (preparatory unit)
- Course 2 – Preparation of Salads
- Course 3 – Preparation of Soups
- Course 4 – Preparation of Main Course (dishes0
- Course 5 – Preparation of Desserts

There are several reasons for the training modules to be defined as courses in the e-learning platform, among them:

✓ Each training module can be delivered independently from the others (except for the first one) since the learning outcomes are defined in such a way, so it is possible the knowledge, skills and competences of the learners after completion of a separate module (course) to be assessed and evaluated separately

✓ In case a learner does not need to complete all 5 modules (according to the state educational standards or regulations in the country) s/he will be able to complete online only the needed parts (in this case – only the chosen VET@HOME courses) and will receive certificates for their completion as separate courses;

✓ The successful completion of each VET@HOE course will be evidenced with issued certificate and in this case certificate will be granted for each separate course, in order to be possible for the VET@HOME training completed online to be validated according to the national legislation and requirements for the respective country.

There is one specific module that is considered as a preparatory unit for the VET@HOME training: **Course 1–Cooking basics**. The module introduces the learners to the basic concepts, rules and procedures to be followed in a professional kitchen, as well as to important health and safety regulations and standards to be observed by the learners during their training (and work afterwards). The aim of the module is to ensure that the learners have the *basic knowledge, skills and competences to implement the tasks related to the further training in the VET@HOME courses*. Thus, **Course 1–Cooking basics** completion is representing a **pre-requisite** for the next courses and it is designed as an **obligatory unit** to be completed in order to continue to the next courses: Salads (2), Soups (3), Main Courses (4) and Desserts (5).

Having this in mind, the VET@HOME training is module-based and ach module is essentially a self-contained holding area for all content items, lecture documents, assessments and discussions included in a particular course in the platform.

Further, each course (module) is composed of training units (lessons) and they cover basic topics that together form the training contents of the module and their successful completion will lead to the achievement of the intended learning outcomes for the respective course (module).

The training contents within the courses itself (course content) is developed and presented in different forms as described below:

***Lecture Area*** — This area within a course replaces the traditional Lecture that would occur in the classroom in a face-to-face training (or in a training kitchen in case of training practice in cooking). Since the instructor is not present to conduct a live, interactive lecture in the asynchronous online courses such as VET@HOME training, other formats are utilized to deliver information to the learners/students.

One of the most effective and widely used forms of online lectures is the written form. Written lectures typically contain information covered in the current module, supplement information provided in the reading (if the course uses a textbook) and emphasize the concepts that the instructor feels are most important. The lecture can take on many forms from a simple text document to an interactive tutorial. Below is a listing of what the VET@HOME learners may find in the Lecture Area of the online courses:

- Text documents/ PowerPoint Presentations containing content, concepts, images and examples that would typically be presented in a live face-to-face course lecture
- Downloadable files such as Word, Excel, or pdf's that contain supporting information for the module
- Links to multimedia files such as audio or video or documents with embedded multimedia within them
- Recorded video-demonstrations of practical cooking lessons
- Links to additional resources such as online articles or activities that reinforce the material learned in the module lecture.

***Exercises and virtual practice -*** Usually in the face-to-face regime of practical VET (and especially when it comes to the preparation of cooks) there are study hours dedicated to physical practice of the skills of the learners to implement practical tasks and operations. This is because these skills (such as cutting, using different cooking techniques, etc.) are acquired mainly through multiple repetition of the same or similar movements (stimulating one's motor memory). Thus in the different education systems similar forms of practical training are embedded, such as:

- training practice (when instructor demonstrates in class the procedures, and then the learners repeat the same procedure themselves in the same controlled environment),
- production practice or training placement (when the practice is organized in an actual company – in the case restaurant- at a workplace suitable for the profession and instructor/tutor demonstrates the procedures in the real working environment, learners repeat after him),
- combination of both or other forms of organization of the guided practical training, etc.

In these cases, the practical training is guided (or at least supervised) by qualified instructor or a tutor and is implemented according to the course syllabus and schedule.

In the case of the VET@HOME project such arrangements are not applicable, since the distance mode of delivery of the training is not allowing for synchronous face-to-face teaching. That's why the syllabus suggests alternative forms of practice:

*Exercises* – after the delivery of particular training contents (read text/PPT, watch video demonstration, etc.), the learner is given a particular task. This can be to make a small-scale research and write a short paper, to repeat the actions as explained in the PPT/video. All of these tasks have the aim to actively engage the learner and to provide opportunity for **independent learning** by doing (practicing). In the case, these are implemented in self-learning mode and are guided only by the instructions given at the beginning, but without the presence of an instructor or tutor. Of course, the learner may search for advice or feedback on his performance by communicating the processes or the results (through one of the listed above methods in the communication area of the platform) to the instructor assigned to his/her course, or even to his/her classmates or group of learners.

*Virtual practice* **–** this form is designed to substitute for the usual training practice in face-to-face mode (as explained above), but in the VET@HOME platform it is transferred into the virtual environment. It requires the simultaneous presence of both learner and instructor, who are not physically at one place, but are connected via video-conference connection. Alike in the training practice the classes are guided by instructor, who performs live online demonstrations, gives guidelines and provides real-time feedback to the

learners, who in turn repeat the actions in their home kitchen. This form of training requires very serious preparation from both the actors, as explained in the other chapters, but still may serve as an alternative to the training practice in extreme circumstances.

The main differences between the exercises and the virtual practice are in two directions:

- exercises presuppose independent individual work of the learner while virtual practice is a form of guided training;
- although they need to be completed in a given time frame (deadline set by the instructor), the exercises are implemented by the learner in a period chosen by the learner himself - according to the availability of the resources needed (access to computer with internet, photo/video recording device, home kitchen, tools and products, etc.), while the virtual practice require the simultaneous engagement of both learner and instructor.

It is advisable that the virtual practice is organized for a few students at the same time, in small groups (up to 6 persons), to save some teaching time to the instructor, but not many students because this will affect the quality of the training and there is a risk that the instructor cannot observe and follow the individual work and will not be able to give effectively guidelines and feedback to all students during the online classes.

The virtual practice can be replaced with face-to-face one when the course is delivered in blended mode.

*Assignments –* they are presented in a separate category because they are implementing two functions: to give opportunity to the learners to exercise their skills (similar to exercises) and to serve as an element of the learners' assessment, and to be included in the final evaluation as explained below.

Usually an assignment within a module is essentially a dropbox that allows a student to submit work to the instructor. Examples of assignments that might be submitted using the assignment dropbox area are written papers, research results or other activities that have been completed offline.  In the VET@HOME platform such possibility is created by the assignment function. It is designed as a type of learning content component that can be included in the courses curriculum and to become part of the course. The assignments should be defined by: instructions what needs to be done by the learner (offline), explanation of the processes/resources, additional training materials if needed, time frame for implementation (can be given in time measuring units – minutes, days, weeks, etc. that will start to countdown once the learner starts the assignment) or fixed date and time, on which the task must be completed and the results/work should be provided to the Instructor; grade that is associated with this assignment (e.g. no. of points) if it is accounted in the final evaluation of the course. The instructor typically will give instructions regarding their preference for submitting assignments (submitted as an attachment in the assignment dropbox area, uploaded in the platform, sent via email, shared in another cloud space, etc.). In any case, before the deadline fixed in the platform expires, the learner needs to submit the assignment. The assignment dropbox makes it easy for students to submit their work and then find their grade later. When needed the instructor can include comments in the grading area as well.

*Assessments and Evaluation* (Quizzes and Exams) — A majority of the online courses conducted nowadays utilize some form of assessment with quizzes or exams. In this regards VET@HOME platform also relies on these methods but suggests a little bit different

approach towards the evaluation of the learners' progress and success and to the assessment of the level of achievement of the learning outcomes of the courses.

Since the VET@HOME syllabus is designed for practical training exclusively, there are no quizzes developed to check the theoretical knowledge of the learners during or at the end of the course. Hence, the VET@HOME platform has a function that allows for inclusion of such type of examination as multiple choice tests, fill the blank tasks, etc. that might be used as to the needs and specifics of the syllabus.

According to the research made by the project experts of the current legislation and requirement for organization and conduction of practical exams, the examination of the practical skills and competences acquired by the learners in the VET system is done exclusively face-to-face mode in all partners' countries. Even in extreme circumstances distance mode of examination or online exams are not allowed, or at least not regulated, in the national VET legislations. Thus, the model suggested by VET@HOME project for distance (virtual) practical training, evaluation and examination is only a pilot model that could be adjusted or modified as to the particular needs, and may be applied only after the respective changes are made in the regulation documents in the partners' countries so it is regulated and acceptable and recognized by the responsible authorities.

Until then, the VET@HOME model can serve as a pilot action to be explored and the learning outcomes from the project training may be validated as to the respective national legislation as such acquired in non-formal and informal learning mode. Hence, some suggestions in this directions are presented in the developed within the project Road map for the accreditation of the partial qualification (O4).

Since VET@HOME courses are intended for online distant training the assessment is designed to account for not only the final results of the learners (demonstrated competences during the final exam), but also to monitor the ongoing performance and progress of the students by including in the final evaluation of assessment of the assignments given to the students along the training. This is done, because it is considered very important to motivate the learners to implement their assignments as guided, because this ensures that they achieved the intermediate results needed to continue to the next tasks and learning activities, as well as to encourage them to aspire to high performance and to study for an online exam (or quiz) as they would for one that will be face-to-face.

The tools built into the VET@HOME LMS to deliver these assessments give the instructor many options that they can use to customize delivery. For example, there are several types of questions available such as multiple choice, true/false, short answer, matching and essay to name a few (if a quiz form of assessment is selected); also assignments in the form of written instruction for the implementation of a particular task or tasks, followed by guidelines how the final result/product from the task should be provided to the instructor/trainer for obtaining feedback on the implementation and/or for inclusion in the final evaluation of the learners' performance in the course. Such examples are: to ask the student to make a video of himself/herself while implementing the practical task, and/or to make pictures of the result/ready product; to ask the student to send/upload in the platform/share their written assignment/pictures/video with the instructor after completing it, etc. In addition, there are settings to control the time limit of the assessment once a student begins and other controls that dictate whether a student can return to a question once it has been answered, how many times the student can attempt to pass a test, etc.

Generally, the assessment and final evaluation of the learner's succession in the VET@HOME courses may be explained by the example scheme presented below:

| Assessment tools: | Relative weight of the assessment tool in the common evaluation | Results obtained by the learner (in points) |
|---|---|---|
| Assessment of Assignment 1 | 10% | A |
| Assessment Assignment 2 | 10% | B |
| Practical (virtual) exam | 80% | C |
| TOTAL (final grade) (T) | T = A*10% + B*10% + C*80% | |

This scheme is an example in which other assessment elements and tools (such as quizzes, presentations, group projects, etc.) can be added with the respective relative weight (and no. of points allocated) as long as the final grade consist of 100% of them. The evaluation/grading criteria will also need to be adjusted as to the requirements of the respective legislation regulating the provision of the training offered by the VET provider. Finally, the grades can be formulated in (or equated to) points, credits, or other numerical indicators that are applicable and recognized by the education system in the respective country.

The evaluation in the VET@HOME platform allows for two types of evaluation depending on the course structure and goals. It can be automatically done by the platform – in case all assignments are programed with their grades and relative weight of each component of the evaluation; or the evaluation can be done by the instructor/evaluation board manually, using the resources and learner's performance indicators (results) reported by the platform and adding other components of the evaluation using an agreed assessment and evaluation scheme. In all cases, the scheme needs to be clearly communicated to the learners in advance, best in the course syllabus.

## 1.2. Practical instructions on the use of the VET@HOME e-learning platform for delivery or practical training for the profession of Cook

In this part of the Guidebook the VET@HOME platform is explained in terms of the procedures and steps to be followed in order to be used by the Instructors/VET providers as a Learning Management System. In addition to the procedure for course content creation, structuring and management, here you will find some guidelines on:

- how to guide trainees from distance/on-line
- how to navigate a learner-centered education
- how to evaluate trainees' performance

**Course content creation and structuring**

Instructors (or VET providers) can create content from Backend as well as from Frontend. To be able to create course content the Instructor needs to log into the platform with the username and password given by the platform's administrator. When entering the Instructor's account, from the Settings menu (upper right corner of the screen, right under the profile name/title) the Instructor will be able to edit his/her profile, by uploading profile picture/organization's logo, additional information, e.g. background, qualifications, contact details, etc.

Once the profile is complete, from the Main menu on the left side of the screen the menu **Courses** needs to be chosen to open the Courses dashboard as shown here:
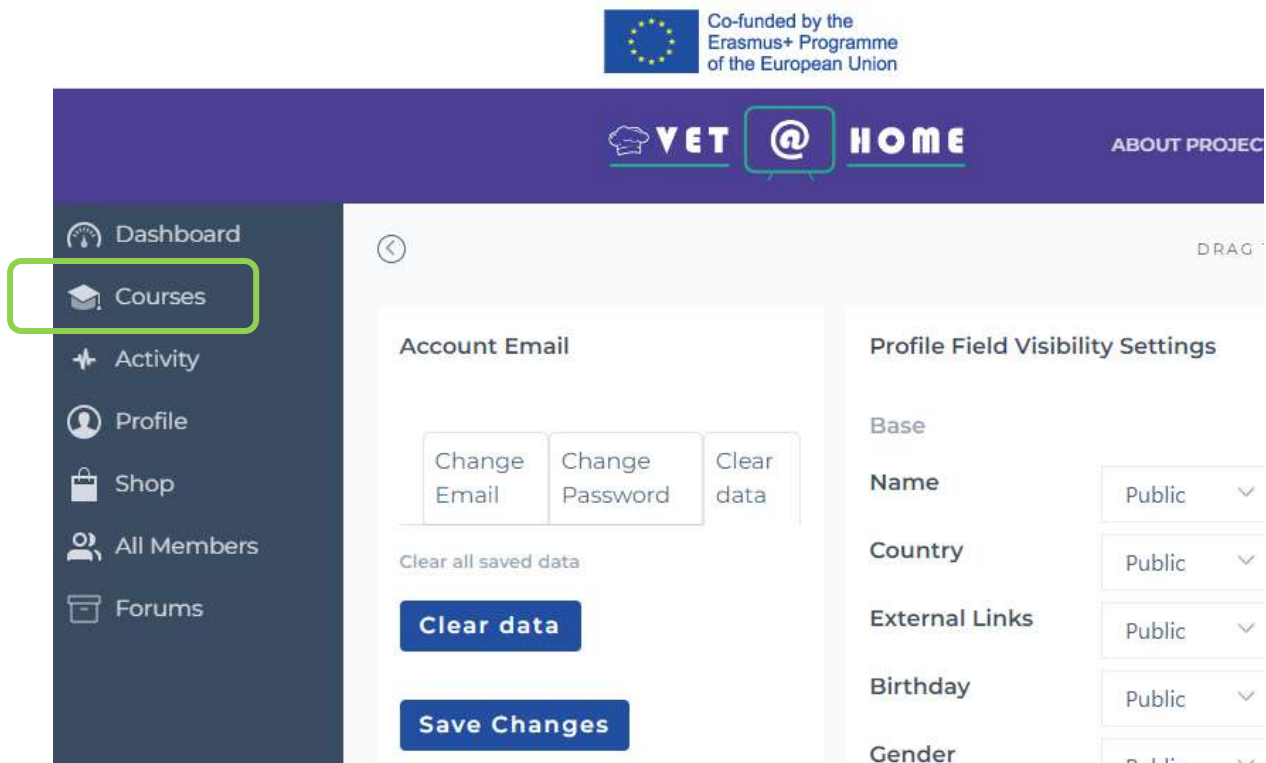


This will navigate the Instructor to the portfolio of all created courses on the platform (Active and Expired can be switched from the tabs above the Courses list).

There are two main sub-menus visualized on the left side:

**Enrolled courses** – this is a menu that is used by the Instructor in his role of a "Student" enrolled in other courses, different than those created by him/her. This way s/he can explore other Instructor's courses and to enroll in them, but as a learner, not as Instructor. Respectively there is access to the training contents of these courses, progress can be tracked, but no modifications are allowed.

Basically this is the menu that is visible and the options that are available for the learners when they enter their accounts (check the red frame in the next picture).

**Instructor controls** – this is the menu that applies to the Instructor's role and gives opportunity to manage the created courses. This menu appears only for Instructors/course providers registered in the platform by the administrator. There is a separate button above both the menus **Create course** which opens a new course and allows the Instructor to build course content (check the green frames in the next picture).

In general, before starting to create a course in the VET@HOME platform, there are several key parameters that need to be taken into account, having in mind that building a course allows:

- ✓ Creating or selecting from existing category of courses
- ✓ Creating or selecting from existing sub-division or category of course content
- ✓ Creating a brief and/or detailed descriptions
- ✓ Setting Course duration
- ✓ Setting Course curriculum
- ✓ Limit the number of students in any Course
- ✓ Setting sstarting/end date
- ✓ Setting automatic evaluation
- ✓ Setting pre-requisites (obligatory course/s to be completed first as a condition to enroll in the next one/s)
- ✓ Manage courses, quizzes, assignments (and other assessment elements)
- ✓ Manage students, etc.

Further, the steps are explained and visualized with pictures of the platform's backend accessible for Instructors.

It is important to highlight that **only the creator of one course can further modify it**, use the uploaded training contents, manage the users in the course (students), monitor the performance of the learners, evaluate them, etc. All other course created in the platform will be visible for the Instructor, but only in his/her student's role.

**Creating a new course**

Pressing the button **Create course** will open a new course page in which the Instructor needs to start building his/her course content. There is a progress bar at the upper side of the screen that will lead the instructor through the steps in course creation. All changes made in a particular page/step are automatically saved by the platform. Once the step is done and the contents is ready, the Instructor needs to press the "Move to …" button at the bottom right end of the page that will automatically save what is done on this page and will navigate to the next one in row, which will also be visible in the progress bar above. It is possible to come back to a previous page/step if changes are needed in the process.



Of course, the first thing that needs to be introduced is the course **name (title).** The Instructor may choose to put a picture to visualize the course (uploaded as media by clicking on the logo button), or even to introduce the course to the audience by adding video (uploaded as internal or external source via link by clicking on the icons under the logo picture).

Each course may be assigned to a pre-defined **category** (if existing) by the button "Course Category+" above the course name or a new category can be defined for the new course.

Further the Instructor needs to fill in the **short and the detailed description** of the course sections. As mentioned above, the first one will appear in the Frontend under the course name/title and may consist only text, while the second will appear in in the Frontend in the main body text of the course page and may include text, as well as images, attachments (files), links, html codes, and other advanced elements.

There are 4 more parameters that need to be programmed on the first course building page:

**Course duration** – here the maximum duration of the course hours be inserted. The platform provides a drop-down menu to select from the time unit (seconds, minutes, hours, weeks, months, etc.) and then there is a space for entering a numerical value. If not modified, the duration will remain as "Unlimited duration".

**Maximum Seats in Course** – here the Instructor may choose to set the maximum number of students that can accommodate in one course. Use this field to limit/control the number of students allowed in the course. When the given number of applicants enroll in the course, it will be automatically closed for new applicants.

**Course Start Date** – setting a course start date (if it's in the future)

**Automatic Evaluation** – there is a on/off button for this parameter. When it's on the platform will perform an automatic evaluation (upon pre-defined evaluation tools and parameters) and the users will get the course results instantly upon submission. When it's off – the Instructor will need to review and assess all submitted assignments and other assessment tools as to the syllabus and to evaluate them manually.

Next to the names of all these parameters (as well as further in the next steps) there are symbols of "**?**" and when pointing them with the mouse a flowing window with additional guidelines for this parameter settings will appear on the screen.

Once completed to move to the next step the Instructor needs to press the "**Move to Advance settings**" button.
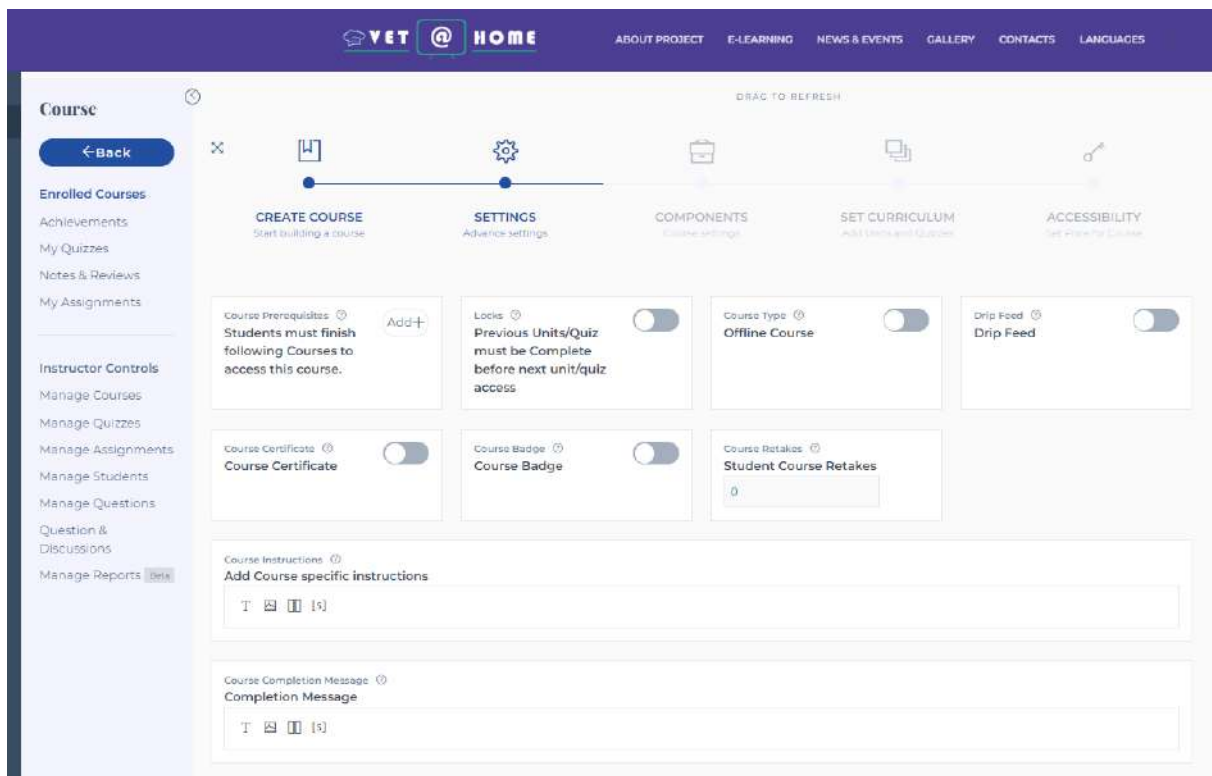


In the Advance settings step there is again a number of parameters that need to be defined and agreed in advance:

**Course Prerequisites** – this is very important parameter that might be extremely useful for the VET providers. From the "Add+" button the Instructor may choose other course created on the VET@HOME platform that the students must finish first before accessing the currently developed course. The function is convenient especially when the courses on the platform are built on the base of training modules and here is a dependency among them or need to be taken in a certain order. Previous courses needs to be search in the VET@HOME platform's database.

In the VET@HOME syllabus such dependency is created for the Course 1 – Cooking basics, that is considered obligatory before starting any of the other courses from the Cook profession training.

**Locks** – it provides similar control of the previous performance of the learners by setting conditions for previous units/quiz to be completed before the next unit/quiz access.

**Course Type** – defines the type of the course as online (by default) or offline. Having in mind the aim of the VET@HOME project all courses are designed as online training. Hence is the offline course option is switched on, this will give additional settings to be managed as required.

**Drip Feed** – this is another parameter that controls the course content access. In drip feed mode, the course units will be released one by one after a certain duration of time. This option is suitable for schools, for example, because it can be adjusted to the school year calendar and define the units to appear as to the curriculum for the semester.

**Course Certificate** – this option when on awards a course completion certificate to the student on course completion. When activated Passing Percentage can be set there meaning that any student achieving more marks (weighted average of Quizzes/assignments of the course) than the set value will get a certificate. Respectively, a pre-defined template of a certificate can be uploaded allowing for the platform to automatically fill in and issue a document. For the VET@HOME courses for Cook this option is not recommended, since the certification process needs to be monitored and verified by the VET providers according to the national legislation of the partners' countries.

**Course Badge** – this is more like a stimulation feature of the platform that will award an Excellence badge to students upon successful completion of the course on the condition that the results are higher than a particular set by the Instructor Excellence Badge's percentage. Another motive for having this feature in the VET@HOME platform is that in case of limited possibility for issuing a certificate for the course completion – for example legislation does not allow for it, awarding a badge for the completion may serve as an evidence for the completion of a training that might be considered as non-formal or informal learning mode and the learning outcomes of it may be testified by the badge and verified through a validation procedure for acquiring partial qualification for the profession.

The option of two levels of awarding the successful completion of a course (certificate and badge), is a tool that allows grading the overall qualification process and activating the accessibility filter for each course. These options do reinforce the functionalities of the platform as a legitimate and regulatory compliant instrument for professional education and qualification.

**Course Retakes** – the parameter allows for limitation of the number of retakes of the course by one student.  If applicable according to the VET legislation of the particular

country additional retakes (for example remedial exams, make-up exams, etc.) may be programmed here by setting a numerical value in the field.

**Course Instructions** – in this field the instructor can insert course specific instructions that will display when a user starts the course. The instructions may include text, as well as images, attachments (files), links, html codes, and other advanced elements.

**Course Completion Message** – similar to the previous in this field a completion message may be inserted and it will be shown to the student upon the successful completion of the course. Various formats of media may be attached here, too.

Next step is Course Components that is accessible through pressing of the "Move to Course components" button at the bottom of the previous page.



Currently there are no components active for the VET@HOME courses, but in case such are needed, the platform supports their insertion here.

The next step is one of the most important steps in building a course. To start the curriculum of the course setting the Instructor needs to press the "Move to Curriculum" button at the bottom of the previous page. In this part the Instructor will be able to structure training content: explained how to choose and arrange from the available learning components on the platform and how to add new training content.

Here the platform will ask the Instructor if s/he wants to build a new curriculum or to upload a ready package.

Please keep in mind that there are limited type of packages than can be uploaded as ready package (as shown on the picture) and these need to be available in advance. Or another option is to select from already existing package (if such was uploaded before for another course).
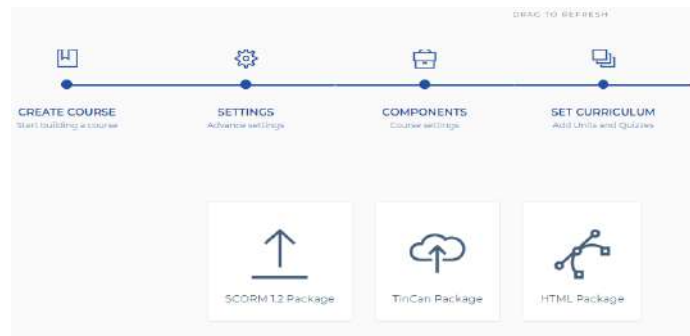
Even with the available option to "Upload package" course, it's always preferable to work by a customizable construction through "Build Curriculum" button, which opens additional Course components setting:
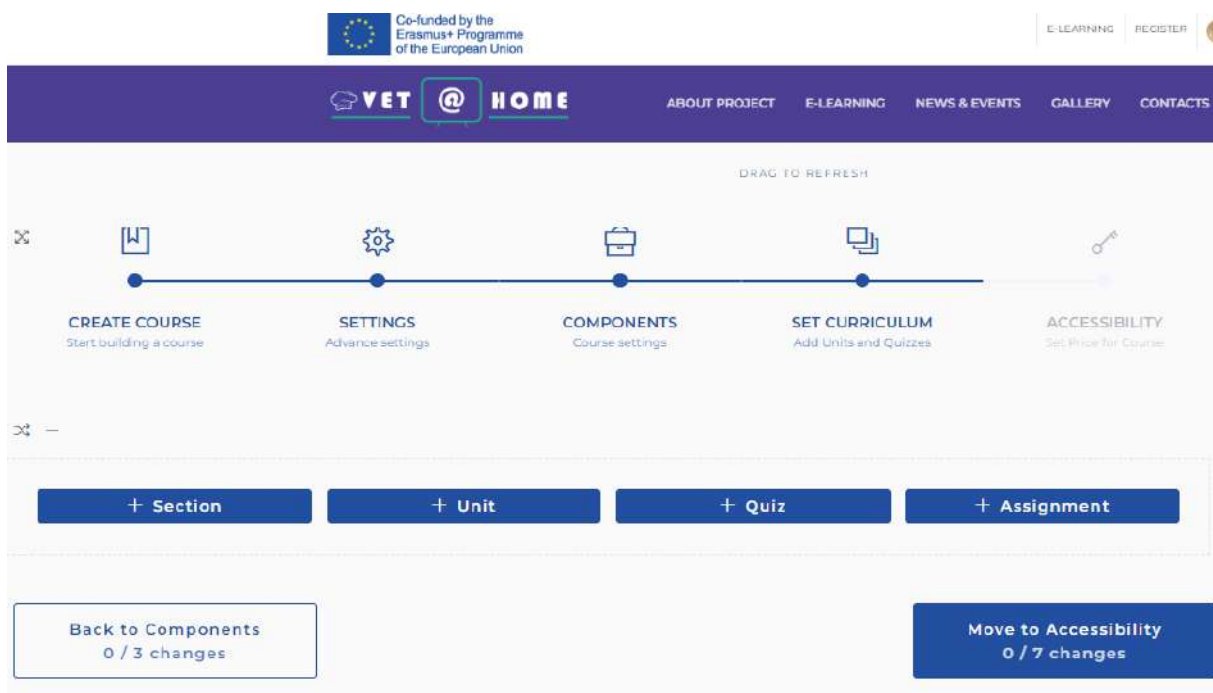


The "**Build Curriculum**" option opens a grid of the course curriculum building components: **Section, Unit, Quiz, Assignment**. These are the **4 main elements** in which each curriculum is structured. Each of them have constant features and many varieties to choose from. Here we will mention the main parameters and encourage the Instructors to explore further the possibilities in details.

Sections" and "Units" are pivotal for the structure of any course, since they would unlock or make possible the application of further functionalities of the platform. Therefore, planning ahead of those is critical.

Each of the key elements of the curriculum is added by pressing the respective button with "+" sign and the name of the element. Section is added as a primary level of the course curriculum. The last added elements are lined-up at the bottom of the curriculum. Places

of all elements can be changed and rearranged by dragging them up/down through the curriculum's structure.

The "**Section**" element serve as a separator or a dividing line for the course structure. It will appear as a main section in the course curriculum summary at the front page and will be visible for all platform's users. The section is introduced as a text field only. A proper name should be associated to the section, which will later be not only a tool for dividing, but also a tool to set different levels of accessibility to the different course's parts.

Once the Instructor created a Section s/he can start to add "**Units**" to it. These should be the building elements as to the course's syllabus (lessons, topics, classes, etc.) and should follow a pre-defined structure.



Pressing the "+Unit" button will open a set of possible types of units to be uploaded. From the buttons depending on the needed type of training resource, the Instructor can add:
- ✓ video
- ✓ audio
- ✓ multimedia
- ✓ text.

There are two more options that the database provides, namely to upload packages of files instantly through the button "Upload Package", or through the "Elementor". In this way the course curriculum can be constructed from portions and fragments already existing in the database.

Here we will take a deeper view of the "Unit" element as the key building component of the course curriculum accommodating the main training content, starting with outlining some common features that are applicable to (almost) all unit types (Video/Audio/Mutimedia/Text in particular):

- ✓ The platform automatically saves each change made in the structure of the curriculum but does not save changes in the contents of the Units - for this there is a separate "Save" button for each field of contents that needs to be inserted;

- ✓ Existing units (of the respective type) in the platform's database can be added in the new course if created by the same Instructor – for this first a new unit needs to be created and once it's opened above the title there is a search bar that will provide opportunity to search the database by key words. When the desired unit from another course is found, a click on it puts it in the place of the new created unit in the current course;

- ✓ By pressing the "Unit Tag+" button the Instructor may choose from the previously entered or to create a new tag for this unit. Tags are useful for grouping units of the same kind (type, topic, etc.)

- ✓ First a name should be introduced for a new unit, otherwise the platform will not accept it as a building element and will not save it, respectively it will not appear in the course structure;

- ✓ "Unit Tag" is another option that is available for all types of Units. It is accessible right under the Unit Name line;

- ✓ All types of units have a field for description or content where the Instructor insets information. The field is called "**What is the unit about**" but it sustains again various formats of files and media that can be accommodated there. In the VET@HOME courses here the min training content is displayed in the form of PPT, .pdf files, video-demonstrations, etc.;

- ✓ Another very important parameter to be set is the Unit's duration. Similarly to the course duration, the platform provides a drop-down menu for the Instructor to choose the time unit (minute, hour, day, etc.) and requests a numerical value to be inserted. If not modified, this parameter will remain as "Unlimited" time duration for the unit;

- ✓ Next parameter to be checked is the option for Free Unit. It does not concern payment but if switched on this unit will be accessible not only for the enrolled students in this course, but also for all visitors of the platform (registered or not). This function can be successfully used for uploading an introductory video/text to the course or other information of an interest for the wide audience;

- ✓ All units provide an option to be connected to a specific Forum (discussion board) where the users can talk over the topic. To search for existing forums to attach to, the Instructor needs to type a keyword in the search field next to the "Unit Forum" section and to choose from the listed there;

- ✓ "Connect Assignments" function is allowing the Instructor to connect an existing assignment to the current unit by clicking the "Add+" button and selecting from the list;

✓ In the next "Attachments" function the Instructor may upload files (or select from the platform's database already uploaded) and they will display below the units with possibility to be downloaded by the students;

✓ At the end of the units there is another option that supports the assessment functionalities of the platform through the "Practice Questions" field. It provides opportunity for the Instructor to assign a question or groups of such (by defining tags) that will be addressed by the students. The questions' pool can be managed from the Manage Questions menu in the Main menu of the LMS;

✓ Units can also be used as a controlling tool defining the level of access of the student when using the options for setting particular units (quiz/assignment) as obligatory and they need to be completed before moving forward (from the Advanced settings page of the course).

**Important:** When all information is inserted and all parameters of a particular (new) unit are set, the button "**ADD UNIT**" at the bottom should be pressed to create the new element. If button is not pressed, the unit will not be saved and all work so far will be lost.

Here is a visual representation of the options and functionalities explained so far (on the picture the example is of Unit type: Video)

In conclusion the previously 4 explored unit types (Video/Audio/Multimedia/Text) have similar structure and functionalities, and are differentiated by the type of files or teaching resources that can be uploaded and stored in the platform's database. The Instructors are invited to explore the possibilities in details and share feedback with the developers of the platform.

The next two "building elements" of the course's structure are the Quizzes and the Assignments. These will also be reviewed as a group, since they have similar purpose – to examine the level of achievement of the students and to assess their succession in the training.

Similarly to the Units, when adding a **Quiz** to the course curriculum, the platform gives a choice to the Instructor regarding its type:
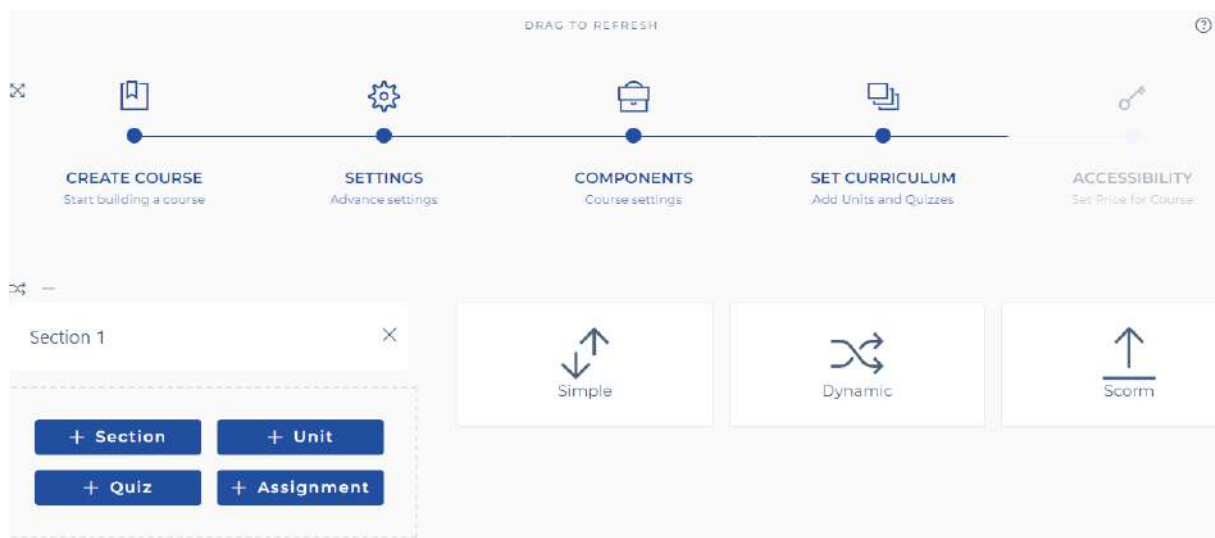


In this case the Instructor may choose to add a simple quiz which will open a page to insert and set all details and parameters as it is done for the Units:

What is different here is that the Quiz will be composed of predefined Questions as explained above and this will be associated with the assessment of the learner's performance since the Instructor needs to define the total marks (points) that each Quiz will give to the final evaluation.

The dynamic Quiz is different from the Simple with its capability to excerpt questions by pre-defined section tags and thus shuffle the list of questions every time. The last option for uploading Quiz Package is designed only for SCORM 1.2 Package type.

Respectively, the Quizzes are used as an element of the assessment and evaluation functionality of the platform. In the case of the VET@HOME project, this functionality was developed for testing purposes but quizzes were not included in the VET@HOME courses for Cooks given the practical character of the training that was pursued.

The **Assignments** are the last building element in the course curriculum and are used primary to give the students tasks for self-preparation. Assignments can be implemented individually or in groups and are designed and included in the curriculum to make the students to implement particular tasks and to achieve certain results. In the VET@HOME case, the assignments are used also as an element of the assessment and evaluation and these are planned in the syllabus to be given at a certain moment of the course progress. This is done for a few reasons, among which:

- The assignments are planned after a series of self-learning activities implemented by the learners individually and these are the first activities that require pro-active behavior and learning from the students;
- They are used as a pedagogical tool to motivate the learners to study regularly and given at a certain point the assignments ensure the engagement of the students in the learning process;
- They are the first (scheduled) interaction between the student and the Instructor when the Instructor receives student's work and gets an idea of the learner's progress in the training. Respectively the assignments can be followed by a feedback and guidelines from the Instructor to the student which topics need to be studied more or can even lead o change in the teaching approach of the Instructor.
- Placing assignments as an element of the final evaluation (with a small but still tangible effect on the final grade) motivates the learners to follow their syllabus and constantly improve their performance.

In preparation and uploading of an Assignment the Instructor can also choose between Simple type and Upload type. The difference between them is that in Simple type the students need to implement the task and submit the assignment in the platform, while in the Upload type the student needs to provide specific type of attachment to his work to evidence the performance.

Both the assignment types may be included or not in the final evaluation (as per the decision of the Instructor), as well as presuppose that should be implemented in a certain period of time (start ate and end date should be set). The next two pictures visualize the functionalities and parameters that can be set and adjusted in the two type of Assignments:

*Simple assignment*

**Upload assignment**

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Title , type to search...

# Unit Name

Assignment type +

Assignment Marks ⓘ

Assignment Duration ⓘ                                        86400Days✎

Include in Course ⓘ                                          Type a keyword

Include in Evaluation ⓘ                                               ⬤

Attachment Type ⓘ
Select attachment types

| JPG | GIF | PNG | PDF | PSD | DOC | DOCX | PPT | PPTX | PPS | PPSX | ODT | XLS |
| XLSX | MP3 | M4A | OGG | WAV | WMA | MP4 | M4V | MOV | WMV | AVI | MPG |
| OGV | 3GP | 3G2 | FLV | WEBM | APK | RAR | ZIP |

Attachment Size (in MB) ⓘ
Attachment Size (in MB)                                              2

Assignment statement ⓘ

T 🖼 ⫾⫾ [s]

Start date ⓘ

End date ⓘ

**Add Assignment**     Cancel

After completing the building of the curriculum in the course, next and last step to be done is to check and adjust the "Accessibility" page, where final settings can be completed.



An option to allow paid and free of charge courses is integrated in the platform. If a course is structured in sections, then optionally there can be a differentiation in the accessibility to the courses (some sections may be offered by the providers as paid and other sections may be offered free of charge). As of now this function is not used since the VET@HOME platform is intended for piloting the project syllabus and is not designed to offer paid trainings, but still the functionality is available and might be further tested if needed.

There is another function for pro-active invitation of applicant that can also be activated at the end of the course building allowing for the Instructor to target a particular group of potential learners (for example this can be one class of students in the school, or one group of trainees in the VET center who enrolled for Cook course) and to send them direct invitations to apply/enroll in the course.

IMPORTANT: All the work done so far must be saved by pressing the "**PUBLISH**" button. This is the last step to activate the Course and to make it visible on the VET@HOME platform. All unsaved/unpublished work will be lost. Once online, the course will appear on the platform and Instructor's portfolio and will be added to the list with courses.

Even after publishing, any of the created by the Instructor courses can be edited and adjusted to the custom needs of certain group of students or target audience, based on analysis from the monitoring the metrics accumulated on previous or current progress of the course.

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VET @ HOME

### Guiding trainees from distance/on-line

The VET@HOME platform is a specially designed tool to support the Instructors in guiding the practical training for the profession of Cook from a distance or in online mode. For this the platform provides a set of **means of communication** such as:

- The **Announcement and News board** – where the Instructor may leave messages or to post important announcement for the students in his/her course, informing them of important deadlines or parameters of the expected performance, giving them guidelines regarding the training contents, etc. The Announcement and news board is used as a one-direction communication tool, but at the same time delivers the message to all affected parties;
- The **Questions/Discussions board** – another powerful tool for direct interaction and communication between the participants in one course. All asked questions here should be properly answered thus creating a pool of ready solutions to be reviewed by all students in one course. The form of communication also stimulates the mutual learning among the students, exchange of experience, and peer guidance;
- The **Unit Forums** – they serve as closed (private) virtual room, uniting all users assigned in a particular course (Instructor and students) and providing a virtual room for discussing very specific subject. The forums may be effectively used as a fast means of trainer-trainee and trainee-trainee interaction and guidance;

In terms of teaching methods applied in the VET@HOME courses, the syllabus provides for another innovative form of teaching, namely the **virtual practice**. In addition to a pedagogical activity, these virtual meetings can also be used as a communication tool that will help the Instructor to establish personal contact with the students (even though it is online-based), to check their progress and to give them personal guidance in the process.

A comprehensive feedback can also be provided by the Instructor in the process of assessment of the learners' assignments. Once submitted through the platform the student's work will not only be reviewed and assessed by the Instructor, but will also serve as an indicator of the students' progress, and will be a good occasion for the Instructor to provide some valuable insights and feedback to the student over his work. This will orient the student what s/he did well and what must be improved.

### Navigating a learner-centered education

Instructors must be aware, that they would have a much broader optional menu, and thus be ready to address students' questions and properly navigate them on the process of access and using of the platform.

Thus it's very important that the Instructor prepare in detailed advance written instructions for all activities that are about to be implemented in the course, to set straight rules and deadlines for each activity and to publish this information freely as early as possible (preferably before the beginning of the course). This will allow for the students to navigate through the training more independently, to choose their next activity (if it's allowed the topics to covered not in a particular sequence), to choose the time for learning and

practicing at home depending on their personal availability, to choose the assessment forms and options (if such are allowed), etc.

The VET@HOME platform allows for a very flexible training process depending on the way of structuring the curriculum and selecting the type of training components and activities, and is addressing fully the concept of learner-centered education. Basically, once structured a course can be multiplied and modified multiple times to fit into the learner's needs and thus to outline multiple **individual learning paths.**

Respectively, using the platform's resources and functionalities the Instructor can build a course that needs minimum interruption of the learning process by the Instructor and places focus on his role as mentor rather than teacher.

<div style="background-color:#e8f0dc"><strong>Evaluate trainees' performance</strong></div>

The final evaluation of the learners' performance will be in any case based on the parameters set in the particular course syllabus. That's why in the VET@HOME syllabus for virtual practical training for the profession of Cook the assessment activities and parameters are presented in great details, including form of assessment (assessment of assignments, practical exam), duration of the assessment activities, evaluation body (Instructor or examination board), formulas for calculating the final grade (a summary of the separate assessment activities' results with the designated relative weight), etc. (using the e-assessment module).

An automatized e-assessment function is built-in the platform through two of the elements composing the course structure as explained above: Quiz and Assignment, but still the platform allows for other forms of assessment (e.g. practical exam). It will be the Instructor's responsibility to select and apply the suitable combination of automatic and manual assessment tools in order to ensure achievement of the intended learning outcomes and to warrantee a fair and transparent treatment of the students in the evaluation process.



In addition, the Instructor have a powerful tool provided by the platform, namely the Reporting module. It is accessible from the Main menu, sub-menu "Manage Reports".
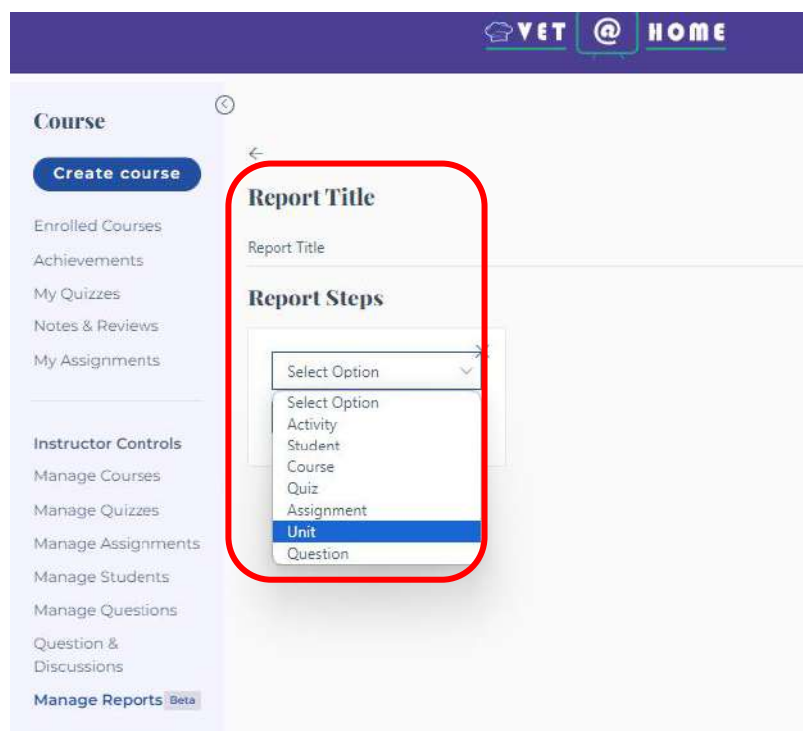
The functionalities of the platform allow here for the Instructor to have a deep insight and understanding of the processes happening in his/her courses. The reports can be excerpted by multiple factors, such as: by activity, by a particular student, by a course, by a unit, by a quiz or assignment, etc. This allows for the Instructor to monitor and evaluate not only the performance of a single student, but to assess the success of the courses and the provided training in general and to make improvements of his/her work as a creator of the courses.

The individual members of the platform (and the students in particular) can be monitored through various key performance indicator (KPIs).
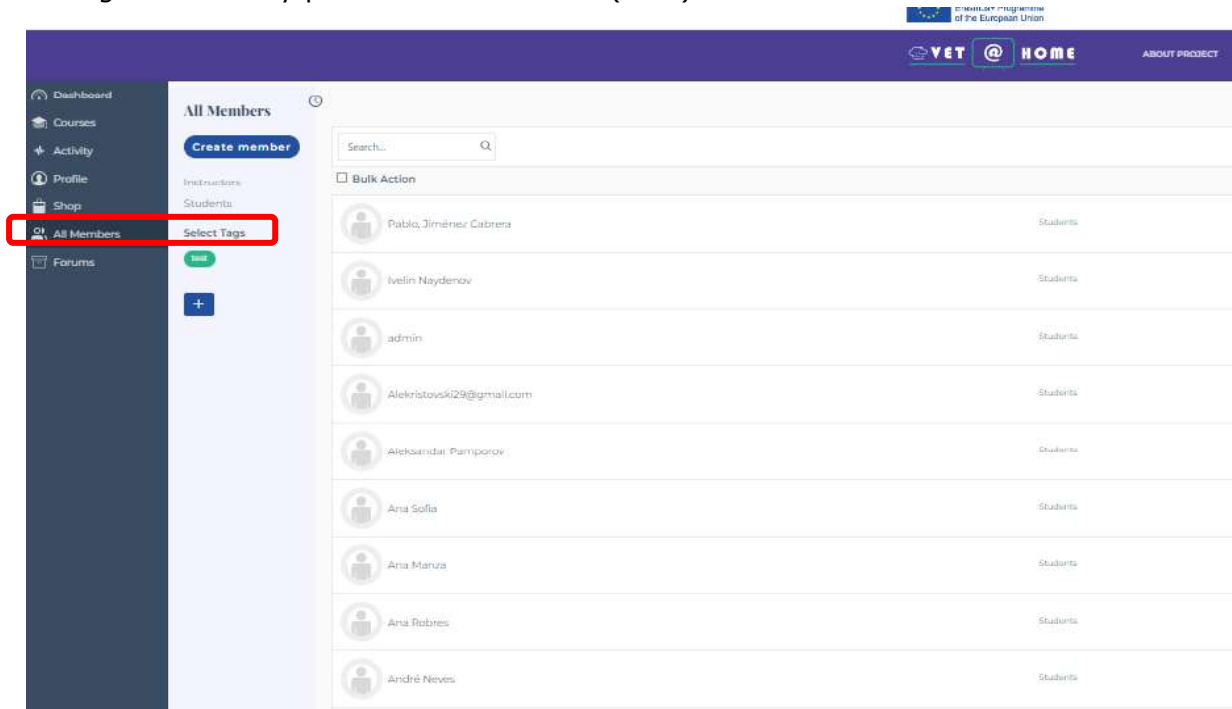


The statistics that the platform can extract through the other menus from the Instructor Controls (e.g. Manage course, Manage Quizzes, Manage Assignments, Manage Students, etc.) are quite impressive and are also a helpful tool in managing the evaluation process and the students' status in general.

## 2. Pedagogical strategies for delivery of online-based practical training

*While in the first part of this document – the Protocol – we explored the procedures that need to followed in order to design and implement courses for virtual practical training in the general case, here we will focus more on the practical implementation of the courses through concrete suggestions and guidelines, based on the experience of the project partners, as well as on the lessons learned during the COVID-19 pandemic shared by the key actors in the vocational education and training.*

At a first place, the efficiency of the online training depends on the following items: Student, Trainers' team, Pedagogical methodology, Content and Technological setting.

We can highlight *3 types of strategies to design the online training*:

1) **System and technology platform centered model.**

It is considered to contain all the elements for learning to take place. The protagonists of the act of learning, teachers and learners, play a secondary role to the sufficiency of the system.

2) **Learner-centered or self-learning model.**

The learner is considered capable of developing the learning process by him/herself with the help of the system or platform. The learner is prepared and capable of learning on his or her own. The role of the teacher is secondary or almost non-existent. In this case, the contents must replace the teacher.

3) **Teacher-cantered model.**

The technological aspect is at the service of the teaching activity of the teachers as in face-to-face classes. Only the means of communication with the students change. In this case, live communication media such as chats, video conferences, etc. are used.

Throughout the Protocol and the Guidebook, we have stressed the importance of the trainer, we believe that his/her role and functions should be emphasized, since the changes to online-based practical training should take into considerations a variety of aspects.

The simplest way is to summarize the **trainer's attitudes** in 2: reactive or proactive.

**REACTIVE** = when the trainer waits for the trainee to ask for help and reacts to that demand. In this case, the evaluations are normally questionnaires with multiple choices.

**PROACTIVE** = when the trainer has the initiative in some parts of the training process evaluation, boosting, individual messages of motivation, etc.

But, the complex world of the online-based practical training gives way to a large number of essential functions of the distance trainer to be considered, which are understood from the difficulties that a person encounters in the self-training process itself, even if he/she has sufficient means in terms of time, material, etc.

The problems and the trainer's functions arising from them are described below:

1. Motivational function.

2. Activating function of the critical sense.
3. Activating function of participation.
4. Orienting function of the teaching and learning processes.
5. Role of designer of appropriate teaching aids to replace the role of the teacher.
6. Disciplinary function.
7. Function of examining deficiencies and potentialities.

Firstly, every training action involves effort. The learner is willing to make the effort if he/she is going to be adequately rewarded at the end. How can the trainer achieve an initial motivation for this? How can he maintain this motivation? In this sense, the trainer has the role of motivator of the trainee.

Secondly, not all people are capable of knowing their own deficiencies. They need the advice of an expert to guide them on their possible existence by provoking self-analysis and personal evidence of their existence. Thus an examining function of shortcomings and potentialities is essential.

Thirdly, in the same way, the capacity for self-direction is also an important problem. Hardly anyone has done self-discipline exercises, so that in most of the actions of our life, discipline is imposed on us by someone else. Therefore, a disciplinary function is required.

Fourthly, most adults have lost the habit of studying. Traditionally, the learning system has been based on the teacher's explanations, forgetting the learning of strategies and learning techniques. This is why it is necessary for the trainer to play a guiding role in the study process.

In the fifth place, complementary to the above is the role of the media. The person adopts a passive position when receiving data. What happens when this second person is missing? An activating function of the critical sense is necessary.

In the 6th place, self-esteem is crucial: the learner may not consider him/herself capable. In a certain sense he/she assumes part of the teacher's role and may have great doubts about his/her own ability to play both roles. The teaching material has to take on this role. It has to permanently anticipate the needs of the learner in order to achieve the tutoring function. This is why the distance trainer plays the role of designer of appropriate teaching aids.

The 7th function of the trainer is to ensure the Interactivity: Traditional training distributed the roles as follows: The teacher was the active subject on whom all decisions rested; the learner was the passive subject. Training was carried out for and by the learner, but without the learner. That is to say, without taking into account their role and their contribution to the process. The new training is based on the need for the learner to take an active part in the learning process. This is even more evident when the contact between teacher and learner is not maintained on a permanent basis. This is why the trainer must play an activating role in participation.

## 2.1. Structuring an online-based practical training

### 2.1.1. Suggested delivery methods, teaching methodologies and technologies

*In this part first we will make a quick overview of the main training delivery methods, teaching methodologies and technologies used by the educators, and their transferability to online learning environment. Then we will review the usage of these methods across the partners' countries and the main findings of their practical application that were shared by the teachers and VET providers.*

As lockdowns were implemented everywhere during the COVID-19 pandemic, the vocational education and training institutions (schools, VET centers, adults training centers, etc.) were also closed, the VET providers abandoned face-to-face classes and on-campus activities and started offering distance learning. Respectively, the distance learning is a modality in which the teaching and learning processes are happening remotely, meaning the students are not physically present in the classroom. For a couple of years this became the new normal education and training delivery mode. The online distance learning was the most often applied alternative to the traditional in-person in-class training, but is was challenged by the specifics of the practical training in the VET sector, including for professions like the Cook. Many VET providers declared that the online practical training is not fully substituting for the in-presence one, and were actually right, so another alternative for these professions were to be delivered for blended learning (also known as hybrid learning). The latter was adopted as an approach to education that combines online educational materials and opportunities for interaction online with traditional place-based classroom methods.

Despite the mode of delivery chosen by the VET providers for provision of practical vocational education and training, there is a number of delivery methods as examined in the literature that provide a variety of tools for the organization of the learning process to select from. Analysis of the delivery methods used during the pandemic outlines the following: discussions (involves open communication between a trainer and trainees, whereby the trainer encourages the trainees to participate in learning by actively thinking about a subject); lectures (a lecturer talks about a specific subject matter or area of expertise for a length of time without any input from the attendees);  remote learning (training between a tutor and trainees through an online portal or platform, which usually takes place through videoconferencing sessions); e-learning (trainees learn remotely through a dedicated educational platform, without attending live classes or tutoring sessions); scenarios (a trainee discussing a particular example scene or event and how to handle the situation effectively); case studies (learning through examples that a trainer provides); learning games (use different scenarios to encourage trainees to make and justify decisions in the workplace); modelling, etc.

Of an utmost importance for the quality of the provided virtual practical training is the usage of a suitable platform (LMS) or a combination of online-based applications that provide opportunity for: online delivery of training (uploading information and files, projecting videos, organizing online sessions, etc.); online communication and interaction between the involved parties in the training process (private communication, group communication, public communication); monitoring and recording the main parameters of the training process (keeping logs, records, traceability of the processes and actions); and organizing the assessment of the students distantly and online (e-quizzes, tests, exams, etc.). Here we may mention several e-learning platforms that were popular and widely used during the pandemic and thus were explored within the VET@HOME project as models for structuring the project platform: Coursera, Moodle, GoogleClassroom, MasterClass, SkillShare, Udemy, etc.  As mentioned above, some of the functionalities listed above could be integrated in the platform by embedding different apps and tools.

What are the important aspects that need to be taken into account when you need to select a platform for provision of online practical training? Here is a list of comparison criteria that we recommend to be applied when it comes to this choice:

- *from users' perspective:*
  - Certification capacity
  - Cost & payment capability
  - Level navigation and grading / trackable progress
  - Support features
  - Media sharing tools
  - Integration of workflow database (submitting homework, assignments, access to library and additional materials, etc.)
  - Capability to manage multiple users classroom
  - Free trials and demo option
  - Time management
  - User forum / users reviews
- *from administrative perspective*
  - Trackable progress
  - Integration of video content
  - Student – Teacher communication functionality
  - Supervision functionality
  - Integration of workflow database (submitting homework, assignments, access to library and additional materials, etc.)
  - Capability to manage multiple users classroom
  - Free trials and demo option
  - Payment capability
  - Support features
  - Media sharing tools.

The selection and combination of delivery methods, methodologies, as well as technologies for their application, is left at the decision of the VET providers.

Now let's have a look of the results and opinions, as well of the findings, obtained by the partners in the process of researching the experience of the VET providers and students during the CIOVD-19 pandemic.

### Bulgaria:

In Bulgaria the pandemic caught the teachers of culinary arts and cooking, and especially of practical training, unprepared. Most of the VET providers canceled or discontinued the practical training in general, or limited it to the available technical tools and solutions that were also unknown to most of them at that moment. With the continuing situation of lockdowns at some point the VET providers started to search for a way to substitute the face-to-face practical lessons by utilizing different platforms and technologies, such as Zoom, MS Team, etc. The positive aspect of this was the sustain of the connection of the trainees and students to the learning process by online meetings with the trainers, but the quality of the training was greatly underestimated. Most of the teachers were left without

support or instructions on how to transit the practical training online, so they used different approaches to engage the trainees in the learning process, such as:

- sending via email or social media groups the topics for the practical training (including the receipt with ingredients, quantities, described technological procedures to be implemented, needed equipment and appliances, instructions, photos of the ready dish, videos if available, etc.), then giving a deadline for the trainees to implement the assignment at home and send photos of the ready product. If needed personal consultations were provided by phone or other chat options;
- explaining via videoconference connection of the main procedures - the teacher talks in front of a camera from home (using MS Teams, etc.) and the trainees/students listen and take notes. Encouraging students to search further for relevant information and videos. Then the trainees prepare the assignment alone at home. No feedback was provided to the trainees in these cases;
- selection of photos and videos available on the Internet by the teacher for each task. Then sending them to the trainees/students together with written instructions for preparation at home. The students presented the results during their online classes via the selected by the school/VET center platform.
- when the teacher and the students were able to use cameras at home, the teacher demonstrated in front of the camera in his/her kitchen, and the trainees repeated the tasks in their homes with cameras on, too. This was maybe the most successful experience, because it gave the opportunity for asking questions and giving instructions and support by the teacher in real time. The difficulties here were related to the pure connection in some cases, constant interruption and noisy online environment with all participants being active at the same time, technical problems related to insufficient equipment, etc.

In terms of work-based learning, there were no training practices (work placements) implemented in the country at all during the COVID-19 pandemic. Most of the catering establishments were forced to close down and these were not only not possible, but actually forbidden. The companies and the company tutors couldn't reorganize their work in a way so they may accommodate apprentices in the restaurant sector at all.

From our experience with the interviewed trainers/teachers there are several key aspects that should be taken into account when choosing suitable delivery methods, teaching methodologies and technologies for the delivery of practical training in culinary arts:
- adapting the educational plan to distance learning
- the lack of technological means or inappropriate ones
- the lack of specific learning resources and materials
- the lack of structured online educational environment suitable for practical training (most of the widely used platforms are designed for home-office or theoretical teaching)

Many teachers declare that they do not see any advantage in the distant mode of practical training. Some of them see any potential in blended learning (distant+face-to-face). Most of them prefer in-presence practical training mainly because of the difficulties listed above.

*Portugal:*

Regarding the technologies used to put online training into practice in Portugal, we can say that electronic devices (computers, cameras, mobile phone, tablets) as well as digital media were widely used to support education and training in schools and/or VET centers. As examples we may point out online platforms, such as: Moodle, Zoom, MS Teams, Google meet, Kahoot, etc.

These technologies and digital platforms allowed to have synchronous and asynchronous sessions, screen sharing, practical demonstrations, to show PowerPoint presentations, podcasts and television shows, to use plugins inside some platform such us chat and forum for asynchronous sessions and a way of communication between trainers-trainer.

In this way, it is concluded that the trainers had to organize their sessions in order to be as practical as possible. They organized practical sessions with thematic videos, television programs, PowerPoint, demonstrations, and more important was that the trainees/students carried out the preparation of the dishes in their homes. In this case, the trainees were requested to make an individual research before they do a recipe.

Also some answers given, stated that another of the methods was using videos that trainers had already produced explaining all the steps to implement a recipe. In this way, active, expository, demonstrative methods were used.

From the trainees' perspective, the best training methods in terms of positive feed-back refer to practical work, projecting and watching films and videos, conduction of a research of a recipe, time management and concentration to optimize the use of resources, screen sharing.

*Spain:*

When it comes to explaining the delivery methods and teaching methodologies that are suitable for online-based practical training and the pros and cons, we can group them by type in two: synchronous (live transmission of the session to the students) and asynchronous sessions (when the student can access the video or other training material anytime he/she wants, not in the same time as the teacher is doing it).

In case of synchronous sessions, platforms like Google Meet, Zoom, MSteams, can be used. Some of the positive points are: the 100% participation and the immediacy since everyone can participate and ask questions. But the disadvantages are also important since the students, by being able to interact, interrupt a lot (some may not be used to it and there can be video and audio problems). In order to have a good functioning, the microphones should be muted and students should raise their hands when they want to interact, otherwise, the interaction can be a chaos since the teacher, while cooking or showing something, cannot mute microphones or "unmute" them…

The midway between synchronous and asynchronous mode is to broadcast the learning session through online e-learning platform in real time, and the students can interact by the chat of the e-learning platform, no verbally, in order to ask questions, so the teacher doesn't have to mute or "unmute" microphones to avoid chaos, s/he can see in the screen the questions/comments of the students who are online and answer their doubts. This mode is much more effective because the students can watch the video without interruptions, plus they can watch it several times from home. Nonetheless, as every mode, it has some disadvantages: the students could only interact via chat/writting, and on the same time, this kind of streaming through e-learning platform consumes a lot of bandwidth which can create conflicts and may slow down the video.

The asynchronous mode has one positive point: that the students can watch the video whenever they have time, they don't have to access it at the same time as the teacher. But the negative aspect is related to not being able to interact and ask questions, which can have consequences on the learning process.

## North Macedonia:

In the dynamic landscape of the education system, the methods applied to impart knowledge have gone through a transformative evolution, reflecting the integration of technology and the changing needs of learners. The educational system, once anchored primarily in traditional face-to-face teaching method, has expanded its horizons to encompass a spectrum of teaching methods that cater to diverse learning styles and preferences. The transformation was mostly seen during the COVID-19 period. This evolution can be seen through the traditional face-to-face, blended learning, and e-learning methods, each representing a unique approach to pedagogy.

Unfortunately, COVID-19 was a direct blow to the education system in North Macedonia, especially for VET professions where there is practical training, including the profession Cook. At that moment, it was possible to notice the state's unpreparedness to deal with the changes that had to happen quickly in the field of education, so for a long period the VET professions were not taught at all, only the theoretical part was considered, while the practical part in general it was not realized or it was realized in unstructured conditions where the trainer himself determined in what way s/he would hold it and how the evaluation of the students would be done.

This situation was prevalent in both the formal and informal systems.

After the loosening of the measures to protect against COVID-19, the lectures were mostly blended (combined - the theoretical part online, while the practical part in smaller groups, according to the active measures, but still with physical presence). Only a small percentage of educational institutions have managed to adapt to the situation and implement classes remotely using digital tools.

Regarding the techniques used, most of them communicated with the students via the MS Teams or ZOOM platform, while they shared the work tasks via email, direct communication via Viber, WhatsApp, by sharing videos (which they recorded themselves or downloaded from the Internet), presentations, sharing links with information and materials.

The trainers in general are not fans of distance learning for practical training, but they admit that the use of technology can benefit them and the students to expand the context of the materials, the deeper communication between them and the students and tools used. The majority of them are considering blended learning as a form of teaching.

## Croatia:

Delivery methods used during COVID-19 were a good example of how different parts of classes can be combined using different delivery methods. Most of the classes were held combining face-to-face and distance. Work at home was encouraged, but when the opportunity was given the classes were given face-to-face in schools. For some teachers using digital tools to create different learning methods was a positive experience. Most of the students had their practical work done in school, around 60% and some had the opportunity to attend WBL outside of school. In these cases, teachers opted for smaller

groups with which it was possible to have face-to-face classes. A lot of the teachers pointed out research learning as the most favorable method. Students were given instructions either through online lectures where PowerPoint presentations were used or by teachers filming themselves after which all the materials were available at the virtual classroom. It was up to the students themselves to further research a given topic and as a result of the research something had to be made; either an essay was written, a meal was prepared or an oral feedback was given through some kind of communication platform and/or presentation. Students gave feedback that they were engaged in the topic the most when given proper instructions on the given task, and of course in an interesting way, after which they would find the answer on their own. One of the definitive positive outcomes regarding the technology usage was filming and editing which was done by some of the students really well, but still a lot of them had trouble in managing some of the basic digital competences.

In Croatia an online platform called Loomen was widely in use as a virtual classroom where assignments were given to the students as well as different materials shared. It was a problem to make all of the students keep track of the assignments so reminders were used via mobile phone calls and text messages. The application Microsoft Teams was compulsory for VET providers during the COVID-19 lockdown and was shown to be user-friendly which is why a lot of schools still use it as a formal communication canal where students are given up to date materials and homework.

### 2.1.2. Suggested online resources

*Based on the data received by the questionnaires distributed across the partners' counters the responders shared different online-based resources that they used or tested during the pandemic in effort to sustain the practical training in culinary arts-related professions. Of course, some were more adequate and effective than others, therefore here we will outline the main findings out of the survey with their pros and cons.*

Basically, the transition to digital education and training started long ago. Many education and training institutions switched to: e-teaching, e-books, e-assessment (with platforms, quizzes, etc.), etc. The digitalization of the traditional teaching and training resources is not something new, since this process started years ago, but the pandemic boosted the efforts in this direction and forced the transition to digital learning environment. Many training resources were already available on electronic media (media that use electronics or electromechanical means for the audience to access the contentii) in different forms: text/image/video/audio/graphic … files, and what was needed to be done is to make them acessable online.

Most of the teachers interviewed in all partners' countries shared that one of their main problems during the COVID-19 pandemic and forced to teach practical lessons to students in cooking (from home), was the lack of structured and suitable for online/distance training mode teaching and training resources. All of them have the needed  teachers' books, respectively the students have students' books, but both are just written materials providing certain information. Undoubtedly the diagrams, schemes, pictures/photos in these books are useful to visualize the processes and stages, but could hardly replace the live demonstration in the kitchen. Thus in order to optimize the teaching process and to present the training contents in a more understandable way, most of the teachers used different visualizing and "in-motion" materials, such as: videos, animated presentations,

even self-preparation quizzes. Despite there are countless videos on different techniques and recipes available on the Internet, unfortunately there are no specially recorded training videos that follow a specific structure and account for the specific skills to be acquired by the trainees. Most of the videos are prepared by TV cooks, culinary bloggers, non-professionals, etc. who often do not explain in detail why they do a particular step or process (for example why we put the salt or other flavors at the end of the preparation of a hot dish), and this is very important for the trainees to understand and learn.

In addition to the video resources, specially recorded for training purposes, the teachers also suggest: digital teachers' and students' books; PPTs; photo galleries, etc. All of this should be organized in one virtual environment (platform, storage, cloud…) and to be possible to access and select from it according to the teachers' and trainees' needs.

Here is a table with characteristics of the most often used by the cooking teachers resources and materials during the COVID-19 pandemic in a distant mode:

| Teaching resources | Characteristics |
| --- | --- |
| **Recorded video/audio lessons** | These are pre-recorded videos intended to provide information on a certain topic; excellent opportunity for implementing demonstration of physical activities – such as cutting, cooking, etc.; allow for simultaneous presentation of visual and verbal contents (instructor can perform activities while speaking and explaining his/her actions); allow for the student to watch the lesson multiple times until they learn/understand the contents; allow for rewinding back and forward, thus accessing a certain moment of interest; allow for sharing with (un) limited number of viewers, thus saving time to the instructor to repeat the same demonstration for each new group. <br> In general, the pre-recorded video-lessons were considered a great training tool for the profession of cook in particular. <br> Audio lessons were not exploited in full since these were considered not sufficient for the practical training in the cook profession, but still could be used for presentation of the theoretical part of the lessons. |
| **Public videos available on the Internet** | These videos were quite often mentioned by the trainers in cooking professions as an available online teaching resource. As we understand, they were used as an urgent solution to substitute to the need of practical training and in particular demonstrations of different processes and cooking techniques during the pandemic, when the teachers were not prepared to face the challenge of providing practical training in a distant mode. In such cases, these videos were a way out of the situation and filled the gap opened by the impossibility for physical classes in the training kitchen. <br> As given for example by the trainers and instructors some YouTube videos could be very useful for illustrating culinary processes or techniques. Hence, these videos should be handled with care because the sources are not always trustful and the instructor should select very carefully the videos s/he recommends to the students. |

| Presentations | The purpose of the presentations is to provide the learners with the structure of the lesson, to list (and explain) the main concepts, to provide more information of the topics, etc. PowerPoint, Canva, Prezi or equivalent products are usually used for preparation of presentations. These are suitable for introduction of the learner into the lesson during (online) class and at the same time could be useful for the students as notes in the process of learning and preparation for examination. Nowadays presentations could be animated to achieve more interactive training and to draw the student's attention. Presentations were widely used during the lock-down regimes imposed by COVID-19, because they are very popular, the teachers know how to prepare them, do not require very high level of technical literacy, accessible on almost all devices and formats, they are easy to compose and design, as well as recognized by the students as a teaching resource, etc. |
|---|---|
| E-books | E-books come in different formats and can be accessed and written by using an electronic device. Basically these are the traditional teacher's and student's books that are digitalized and made available online. Their purpose is to provide structured reading for the learners. In the case of practical training the e-books could be developed as handbooks, guidebooks, protocols, etc. They were widely used by the teacher during the COVID-19 pandemic, since they are relatively easy to develop by digitalizing the existing training materials in the subject, easy to distribute and easy to use. |
| Written (audio/video) instructions | In most of the cases instructions are provided as a written online available document, but sometimes can also be recorded by the Instructor. These are elaborated and targeted to specific group (auditory) and on a particular task (e.g. instructions for an assignment, for preparation for assessment, etc.). Such instructions were sent/shared with the learners via digital communication channels or made available for them online. The instructions are considered an important teaching resource that needs to be developed for every single course. |
| Others | Some specific solutions were also mentioned, such as: access to online data-bases, charts, simulations, even electronic games, which complemented the most used resources as listed above. |

All of these undoubtedly require training programs (curriculum, syllabus) specially designed (or adjusted) for the delivery of virtual practical training, so the teaching-learning process may flow in an organized and structured way.

### 2.1.3. Suggested means for interaction between the trainer and the trainees

*In terms of the suggested means of interaction between the students/trainees and the teachers/instructors many issues were mentioned by the interviewed stakeholders when transferring the communication to the digital environment. Still, they pointed out some very feasible solutions for online interaction, as well as gave some preferences to particular communication tools.*

Here we will list these from the most to the less preferred by the participants in the training:

### A. Immediate (synchronous) communication methods

These are online-based communication methods and tools that allow for the simultaneous participation of two or more participants, as well as exchange of information (text, verbal, visual, etc.) in real-time (live). They usually require an immediate response. Among these the following were mentioned:

| Communication channels | Characteristics |
|---|---|
| Learning Management Systems or e-learning platforms | Even though the LMSs and e-learning platforms have quite a broader purpose than serving as a communication channel, they usually sustain different interaction means integrated in their structures. They may provide more than one tool for teacher-student and student-student communication and interaction and this makes them the most preferred channel for both the actors in the teaching-learning process. The combination of specific tools the different platforms offer for this purpose varies as the platforms, but usually fall in one of the next categories, so we will not discuss them here. Examples of such platforms mentioned by the stakeholders are: Moodle, MS Teams, ZoomLearn, Google Classroom, etc. The negative aspect here is not related to the functions of the platforms that during CIOVID-19 pandemic proved to be the best solution, but most often concern the price of such platforms which is not affordable for all VET providers. There are some simple solutions, still a specially designed LMS with particular functionalities is costly and not always justified. |
| Video-conferencing | Both teacher and student/s being online at the same time via video-conferencing connection allows them to interact while they see each other (video) and talk, discuss, ask/answer questions (audio). This connection is ideal for simulation of face-to-face practical classes in Cooks training, since represents all aspects of the training as it would happen in a training kitchen or in a restaurant. Both-ways interaction is a great way for the students to receive immediate answers to their questions, as well as for the teacher to monitor their performance. Although it is defined as one of the most preferred communication methods (by both students and teachers), this method is also characterized as one of the most problematic, because it needs to be implemented only after a sufficient pre-preparation of both students and teachers. It also requires different protocols to be developed and applied depending on the setting in which video-conferencing is used, for example: - can serve as live-demonstration (the teacher performs activities, the students only watch – meaning: students must mute their microphones not to disturb the training process; teacher must stop at certain moments and make sure that all is visible and students can hear and understand well, etc.); |

| | |
|---|---|
| | - can serve as a virtual training kitchen (the teacher performs activity, the students watch and repeat after him/her – meaning: all working stations at the teacher's and students' premises need to be equipped with the same/similar equipment and materials; after each demonstration the teacher need to stop and check if students implement the action correctly and to provide immediate feedback and/or guidance; can be done in small groups of students only, etc.); <br> - can serve as a virtual examination space (the student implements pre-agreed task and the instructor watch and evaluate the performance, meaning: technical requirements must be set in advance and students need to follow a certain protocol on how to prepare, how to present, etc.). <br> Speaking of technical assurance, it is also often mentioned as a problem for both VET providers and students in the courses for Cook's preparation: the needed cameras, microphones, Internet connection, etc.; the needed equipment for practical training, appliances, utensils, etc. <br> Finally, one of the most problematic moment in using video-conference for practical training for cooks is that the instructor will not be able to react and help if an incident happens with the student while implementing the tasks. |
| Live-stream | Similar to video-conferencing, the live-stream allows for the teachers/instructors to present and teach practical skills by performing live demonstrations. Here again video and audio information is accessible for limited or unlimited number of viewers, depending on the selected app for streaming. Hence, this communication channel limits the possibility for teacher-students' interaction since the streaming is in one direction: the teacher streams the live-video in the Internet, the students watch. There is a possibility for the students to ask questions through a chat along the streaming, which provides opportunities for interaction – the teacher may stop at certain moments, read and answer the questions, or can do it at the end of the presentation. The channel is suitable for performing video-demos to large number of students with a limited possibility for interruption by the students. |
| Written/text communication channels | The synchronous written communication channels are usually supported by different instant messaging apps, such as WhatsApp, Messenger, Slack, etc. In the time, most of them added also possibility for audio/video conversation which added value to the apps as communication channels for immediate interaction. Still they are also preferred method for exchange of information in written form and transmitting quick text messages (text and/or images). They exists in different forms, such as: live chats, messengers, closed/public groups in platforms or in social media, dashboards, etc. The strongest point of such tools is the faster and more efficient way of interaction, especially when the app is notifying the user for an incoming message. The week point is that they do not allow for exchange of large files or data and also could be manipulated by external factors (messages to be edited/deleted after sending; history to be turned off or |

| | erased; outside users to be invited or inside users to leave/be banned in the chat, etc.). |
|---|---|
| Real-time audio-connection | Just like online video-conferencing, the audio-conferencing is an immediate mean of interaction between the teacher and the students. It can be done by phone (mobile) or via one of the listed above applications that have options for Internet calls/web calling. The specifics of the audio-connections depend on the chosen application, platform – how many participants, is the connection secured or limited, etc. Still for the purposes of the virtual practical training this communication method is not highly appreciated, since: it does not record or keep track on the exchanged information; does not allow exchange of other data/files; does not add much to the teaching methods, especially when it comes to practical training, etc.<br>Thus, the audio-calls are considered as suitable only for quick and immediate exchange of short information or quick guidance on a particular matter. In addition, phone calls are not preferred by the trainers, especially when they are done in unappropriated time and/or without previous agreement. |
| | |

### B. Asynchronous communication methods

These methods do not require an immediate response and it is considered that there is a delay between exchanging information. They allow interaction without real-time conversation and are less time-sensitive.

| Communication channel | Characteristics |
|---|---|
| Forums and discussion boards | Closed or opened group communication channels; often organized by topics (threads); the forum can keep track of all communication exchanged among all parties (if evidence is needed about who, when and what posted) and can store large amount of written data/text to be searched through or called out when needed; gives opportunity for many participants as well as for personal reply to a particular question or concern by indicating the receiver; it simulates a public discussion but in written form with selected number of participants; limited possibility of exchanging files (only images or small size files). |
| Emailing | Exchange of emails is a trustful and secure way of communication; widely used and popular communication tool, usually free of charge or cheap; allows for mutual communication in a private setting, as well as a group communication with more than two receivers (in CC); allows for time-tracking of the exchanged information and materials, thus could be used for evidencing if a given deadline is respected or not; allows for files attaching (usually up to limited size) and supports most regular attachments' type/format, allows for providing of links to external sources or access to clouds with data/files; allows for all communication tracking. |

| | From negative point of view, emails do not require immediate action/respond, and while giving some flexibility in terms of the time-span, they also could be easily ignored and not answered or the answer could be delayed or the corresponding action/request – not to be implemented. |
|---|---|
| Publications/posts | These are mentioned as functionalities of the social media, since the latter are widely used by the young (and not only) people today, including for educational/training purposes. Different media such as Facebook, Instagram, YouTube, etc. allows for the user to create his own space within (page/wall, group, profile, dashboard, channel, playlist, etc.) and to provide own content there, while being able to manage and limit the access to this contents. In this sense, the social media publications (posts, shared files, published videos, etc) could be used as an interaction area, including into the educational process. Actually, the research showed that they were one of the main instruments to sustain the training in the schools and training institutions during COVID-19 lockdown regimes, because they are accessible, affordable, easy to navigate and most important – extremely popular. |
| Websites and blogs | Similar to social media, websites and blogs are a personal/organizational virtual space that allows for upload or publishing of contents, including training content, of different type and volume. They provide many different options for managing this content, such as limited access to different areas/sections of the site, targeting specific audience, etc. Interaction through websites and blogs could be ensured by comments of particular content published on the website, or blog.<br>The problem here is that usually these require additional investing for purchase of domain, paying for: the hosting, the web-development, the update and maintenance, etc. |
| Video/audio notes | These were mentioned as an alternative of the written announcements or notes and their main purpose was to deliver quickly information to a (group of) student (s) when a visual/audio representation of the transmitted message is need. |
| SMS text messages | It was considered by the interviewed stakeholders as an outdated communication method, used in rare cases and by exception. Usually it was used by people who do not have access to Internet (and use mobile phones for communication). Hence, this method is secure, trustful and quick way of communication, but requires a mobile device and network coverage and can transmit only short text to a single receiver (or a limited group). It was not appreciated as a main mean for interaction by both teachers and students. |

As a conclusion, the preferences of the surveyed stakeholders were towards the immediate communication methods and means but within a limited timespan (preliminary scheduled if possible), while Asynchronous communication methods and means of interaction were used mostly as add-on to the main channels to provide additional information to the students.

The choice of interaction means is defined by: the available budget (of both VET providing entities and learners); available technical assurance; accessibility and users' competences on how to use the different solutions, etc.

### 2.1.4. Suggested assessment and evaluation strategies and tools suitable for online training

*The e-assessment is a widely applied tool in online taught courses, but mostly for evaluation of the knowledge gained by the learners in the theoretical part of their training. In this tests, quizzes, and other popular assessment tools are used since they provide opportunity to collect evidence of the learners' knowledge and compliance with a pre-defined standards or criteria that are easily measurable through these tools. Unfortunately, when it comes to measurement of the "hard" (professional) skills evidenced through the physical implementation of tasks and actions (in the case of Cook profession these are cutting, cooking, serving, etc.) these accessible online assessment tools are not applicable. Respectively, alternatives should be researched and here we propose some suggestions identified by the project partners in the course of the research and survey they made among the VET providers in their countries.*

### Bulgaria:

In terms of assessment and evaluation of the practical training in culinary professions in Bulgaria during the pandemic, there is no such practice, because it is not regulated in the legislation as a possible form of evaluation at all. Respectively the teachers could not apply these strategies so far.

However, they suggested some thoughts on the matter while listing the difficulties they met (this was one of them - lack of tools for e-assessment and evaluation) and they all laid down with the regulations that require the practical exam to be held at the end of each VET course in-presence, with the simultaneous participation of the student (or a group of students) and an examination board, and that the practical exam needs to be recorded and retained for the archives. The teachers and instructors see an alternative in synchronous organization of the final practical exam for Cooks via video-conference connection between student and examination board and video recording of the full duration of the exam (organized by the VET provider), which in the case of the distance learning and examination is extremely difficult, because it depends on the technical availability of the trainee to ensure sufficient equipment at home (camera, microphone, Internet) + stable live connection via Internet with the examination board. In addition, one of the key assessment components in the profession for cooks is if the trainee implements all measures for health and safety which can hardly be established by video. The recording in any case will be used not for direct evaluation, but mostly as evidence of the performance of the student during the exam.

Even if it is possible to organize a practical exam in a distant mode, this exam should be individual, for one trainee/student only. Another requirement is that there should be an examination board or committee of at least 3 persons - representatives of the VET provider or teachers/instructors or representative of an employer for the respective profession. They need to be in the connection simultaneously and all the time.

Another important aspect of the final exam for practical training that should be taken into consideration is the limited duration of the examination period – there is a defined time (number of hours) for completion of the tasks given.

Regarding the current assessment of the assignments given to the trainees/student (as a homework or group work during classes) while conducting the training online, the teachers used the synchronous learning platforms to observe the students' in real time and evaluate them based on their performance. Hence they report shortages to this method, too, because even if the workstation preparation, the following of hygiene rules and steps, the correct techniques and tools used while cooking could be observed by the jury and assessed in online mode, some other key criteria for evaluation of a ready dish, such as taste, texture, consistency, etc. cannot be estimated via distance evaluation.

## Portugal:

The opinion of the Portuguese trainers is that the assessment methods must be adjusted to the digital means of communication between trainees/trainers, the time for carrying out the assessment tests must be adjusted to better achieve the defined objectives. The e-assessment will always have to be continuous, in synchronous sessions through oral questions, participation during the online session, commitment, and other parameters that the trainer finds pertinent.

With regard to the final assessment, it can be carried out through a theoretical test and a practical component, using the recording of videos, presentations, and execution of a practical activity. All e-assessments must be carried out online alternatively to the in-presence ones and grades should be communicated to trainees.

The tools that can be used are video-conferencing on suitable platforms (Zoom, Teams...), Moodle platform used by training centers and schools, cameras, mobile phones, computers. There should always be evidence of all assessments performed online such as Print screen (PrtScn), recordings, etc.

## Spain:

Concerning the practical assessments that the student will have to do from his/her home in online distance learning, it should be very well explained to the students beforehand. The teacher should make sure before the assessment that the students have at home in their kitchen all the necessary materials (utensils) and the ingredients needed to perform such assessments. There may be difficulties in providing raw materials for cooking or specific kitchen hardware for trainees in their own homes, but these difficulties may be avoided by planning recipes with basic food products easy to be found in any markets, and also using kitchen hardware that learners may usually have in their houses.

On the other hand, the Internet connection and IT devices should be checked before, in order for the student to be sure to stream his realization of the assessments.

As for the evaluation strategy, it should include different methods such as the testing of knowledge through more theoretical evaluations and testing of practical skills which is also very important in such training as Cook.

## North Macedonia:

During the pandemic there were no guidelines or documents in N. Macedonia to show the trainers how to evaluate and assess the work of the students involved in online training in the practical part. Most of the time there were only theoretical evaluation and assessment, or the practical assessment was postponed until the measures for COVID-19 were loosen so they evaluate them face-to-face.

However, the trainers gave the suggestions for online evaluation such as live video conference (one on one) where the students have been provided with guidelines on what to have in the kitchen as equipment and food prior to the evaluation and then to prepare a dish while the trainer is observing.

Another suggestion was, the student should prepare a dish and record it, and then send it to the trainer for evaluation. However, they stressed that this form of evaluation will not be equal for all students since some of them do not have proper equipment in their homes or do not have enough financials to buy all the ingredients i.e. it will be in favor for the wealthier students.

*Croatia:*

Example from Croatia are several documents which provide a thorough explanation on how assignments and projects should be assessed. One of the instructions given to teachers who evaluated their students was to look for examples of students involving their own experience in a given task, e.g. learning from their own mistakes. Students were encouraged to take notes about the taste and smell of the meals they prepared, which is a kind of self-evaluation tool.

Teachers and students should be constantly in communication with each other throughout every phase of a given task. Each phase should be graded appropriately: searching for materials, theoretical preparation and execution of the practical task as well as the presentation as the last step.

One of the positive comments on virtual classrooms/online platforms (used in Croatia during lockdowns) and evaluation and assessment was that each student can pick the time to do the task on their own. They were given a deadline but it was up to themselves to organize when they will do the task. Self-assessment through quizzes is also a recommended method by the trainers. Students should make a kind of portfolio which would be always available to them where they can track progress themselves. Peer evaluation is a good method as well since it provides an interesting way of feedback for students which is good for motivation and engagement as well.

Some of these findings and suggestions were used when the project consortium drafted the assessment and evaluation strategy to evaluate the performance of the students in the VET@HOME courses. It can be found in the O1-Syllabus as well as integrated as assessment and evaluation options in O2 – the VET@HOME e-learning platform.

## 2.2. Facilitating a successful training

*This is quite a complicated mission in which many VET providers failed during the pandemic and the remote online practical training. The establishment of safe and predisposing online training environment does not come without special efforts. Here again we draw on the experience of the partners and their conclusions based on the conducted research within the project.*

*Bulgaria:*

In Bulgaria the VET trainers in cooking concluded that very detailed instructions on the technical preparation before the start of each online session is crucial - to remind the

trainees of the main capacity/features of the platform used, what devices they will need, instruction for preparation of the work station (at home) before starting the class, etc. This will engage them even before the beginning of each class and will demonstrate commitment to fully participate in the process.

## Portugal:

Similar findings were made in Portugal - for distance practical training to be successful and conducted in the best way, there must be certain methodologies to be adopted. Such methodology would be to issue an instruction with regulations for any course that takes place at a distance learning, which includes the physical and technological resources used, evaluation method, rules to be complied during the video-conference session ("rules of etiquette").

In the case of virtual training, it is of high demand to maintain the level of motivation of the participants and the attention with which they are during the subjects that the trainers explain. In this way, it is necessary to invest more time in practical tasks and in the dialogue (question-answer) between the trainer and the trainee. Some rules must be well defined at the beginning of the course, such as always turning on the cameras, turning on the microphones only when someone is speaking, presenting yourself in the video-conference with an appropriate posture (since you must not forget that you are in a training context). These rules are important to maintain a healthy environment and effective communication.

## Spain:

Engaging the trainees starts from the very beginning of the course since, by being online, they can easily disconnect and loose interest. So, ensuring that all students have the basic level and can understand the tasks could be the first step. Technological and digital literacy needs of pupils can be overcome by thorough explanations on how to register, enter the e-learning platform and follow the training.

The second step is to make sure that the training difficulty is progressive: it's always better to start with basic teachings in order for all to be on the same level, and then start building from that level on.

The students' attention can be improved by implementing more exercises which can keep the trainee active, since online training in general could indulge him/her to be passive. The solutions for improving the student's activeness are related to making the training more intense, interesting and dynamic. Using active and participative methodology and with platforms such as Zoom in which different work groups can be formed during the teaching session may help student interact more between them and with the trainer.

So as to the disadvantaged learners, the difficulty in training pupils with greater learning difficulties and who require more personal dedication – can be overcome by proposing specific personalized training and explanations to trainees with special difficulties.

## North Macedonia:

Training for the trainers about online teaching and effective engagement of the trainees is considered to be of utmost importance by the VET providers in N. Macedonia. Detailed instructions for the trainers before the class as well as for the trainees are a must. Also, the trainers need to adapt to the trainees and their level of technology use, their personal/group needs, etc. A positive effect in engaging the trainees in the learning process

are considered the well-structured and developed digital teaching materials, especially those with interactive elements (requiring the students' active participation) so the trainers can share joint activities online with the trainees.

*Croatia:*

Engaging of trainees was an issue for every teacher in Croatia. Based on feedbacks, from each subsequent online class teachers got a better idea on how to engage their students. Innovative approach was the most optimal. Smartphones proved to be a good tool for starters. Students had to be acquainted with what different technologies were capable of, what could be done behind a computer and with a smartphone (in terms of learning, not communication with friend or playing games).

When they were given good instructions students were more interested. More emphasis on research-based learning and experiential learning was a key to make the students more engaged as well as giving group tasks where applicable (for example ask them to divide the work between themselves).

Teachers which continually provided feedback information and were generally in contact with their students found that the students would also be more engaging. Gaming-like tasks is something the students were interested in. Involving some aspects of gamification of the training content theory proved to be interesting and engaging.

In this part of the Guidebook we would also like to pay more attention on the advantages and disadvantages of the online practical training for disadvantage learners. It is true that more and more (also young) people experience difficulties and deficits in learning or have limited access to quality VET due to their situation.

For the first groups of disadvantage learners – those with disabilities there are two different approaches identified on how to include them in online practical training:

- physical disability or special needs – such learners are suitable for involvement in online training since they usually have difficulties in participating efficiently in in-presence VET due to insufficient infrastructure in the education/training institutions, for example there is a physical impossibility to reach the premises where practical trainings occur. Even if the building and teaching class rooms in the schools are adjusted and made accessible for people with physical disabilities (through ramps, elevators, etc.), the training kitchens are not (for example the work tops, sinks and other equipment are not reachable for people in a wheelchair). Thus at their own home and kitchen, these people will have all adjustments made – lower countertops, specially mounted cooking ranges, etc. - and following the online training (video lessons, etc.) will be able to participate in the training.

- mental disability – this group of learners is challenge also in the traditional educational setting to be trained for the profession of cook, since there are many factors that need to be considered. The training and working environment in the kitchen is very dynamic, noisy, distracting in some moments, so all activities should be carried out with extreme concentration. Hence, if the condition of the learner allows for practical training for cook, s/he could be involved in a distance online course and to receive special support as needed also from the trainer or specialist when needed via the established online communication channels for the course. The possibility to adjust the learning intensity as to the learner's needs and

providing individual support and/or sessions, if needed, will result in effective training. Additional training materials could be developed and provided, too.

In both the cases the disability when caused by a physical/mental illnesses needs to be evaluated at the stage of application and VET should be provided to these learners for whom the profession of Cook (or the learning process at all) will not be dangerous, harmful or problematic. That's why in most countries a medical certificate is required from the applicant evidencing that their health status and condition allows them to be educated/trained for a particular profession.

Therefore, the VET@HOME project provides workable solutions: use of video content and free-access resources - to allow for autonomous organisation of the learning process by each individual.

For the second group of disadvantaged learners – those who belong to socioeconomically disadvantaged groups there are also workable solutions to be involved in the VET. For the approach suggested in the projects provides for:

- learners living in distant/remote and rural areas, or coming from a complicated/poor social-economy background - the online delivery will make the training affordable in all terms. The identified solutions here are related to: options for distance and/or blended learning; autonomous learning, online available resources, virtual practices, internet connection, etc.
- learners exhibiting mild to moderate learning difficulties (low achievers) – the interactivity given by the online training is a tool that could be used for: raising motivation, presentation of interesting and attractive (visual) training contents, engagement of the attention of the learners, using different interactive contents; support and assistance to the learners, etc.;
- minorities and migrants: possible adjustments to the training structure that will help the full inclusion of the group in practical Vet are: using simple language, structuring the training contents in short units, focusing on visual presentation of the training contents – demonstrations, hands-on experience, etc.

Below we give a list of hints on how VET providers and instructors should approach their trainees in order to engage them better in the learning process:

| TIPS: |
| --- |
| - *Get the level of all participant and align the course presentation with their expectations out of the training (being flexible and adapt);* <br> - *Use innovative tools and applications;* <br> - *Create a safe environment /ensure moderation of forums and discussions/* <br> - *Create a good group atmosphere /give group tasks and assignments, set rules for communication/* <br> - *Include disadvantage learners in the training by treating them as equals to all, but providing them with the needed additional support as to their needs.* |

## 3. Difficulties and proposed solutions how to overcome them

*This part of the Guidebook was elaborated jointly by the project partners following a desk research complemented with the distribution of a set of questions addressed to teachers/educators in the VET system (teaching in tourism specialties) who actually experienced all the difficulties caused by the impossible or limited possibility during the lock-down regimes to conduct their practical training in face-*

*to-face-mode. The collected feedback, issues shared by the respondents, as well as suggestions for feasible solutions of the problems, are summarized and presented in this part of the Guidebook.*

*The problems identified by the teachers and tutors were very similar across the partners' countries, still they were approached in a different way by the stakeholders in the different countries, who needed to also observe: the national legislation, the available resources, the type of learners (younger students in school or adult learners), as well as other country-specific parameters. Respectively, different solutions to similar challenges were imposed in the different countries, thus in this part we will share the experience on a country base.*

*Bulgaria:*

One of the most often mentioned negative sides of the distant practical training by the teachers in Bulgaria was that it is not possible to personally observe every single student at all time and to prevent a mistake made at the moment or guide/demonstrate the correct action to be implemented (sometimes in culinary training this even means to hold the trainee's hand and to show a particular move or detail). In such moments the teacher usually explains where a mistake was made and corrects with the right guidance. The ways out of this situation are: 1) individual sessions and the teacher/tutor to observe only one student throughout the whole process or 2) at the end, when the student is presenting the result of his/her work, the teacher to analyze the final product and to (try to) point out the (possible) mistakes made.

Another very common answer to the question regarding the difficulties met by the trainers was that the distant practical training requires more effort on the part of the teacher: for active and motivated participation in classes, for searching/preparation of resources for online teaching, for learning a few different platforms with all their specifics and requirements. In this regard, having one unified platform and specifically designed training resources/materials, as well as common protocol on how to use them with clear steps and instruction, would be beneficial for the teachers.

Other difficulties mentioned by more than a half of the respondents in Bulgaria were met also in some of the other countries. Thus, to avoid duplication, here we will present a summary of the issues and possible solutions:

| Problem | Possible solutions |
|---|---|
| - lack of personal contact with the trainees | - organizing/scheduling individual or group session for online video-conference and/or real-time communication via chat or other synchronous method; <br> - ensuring a virtual space (messaging system, chat, etc.) where a private communication between the trainer and a student can be exchanged – but not using personal profiles or social media accounts, meaning that the communication channels should be coordinated by the VET provider. |
| - the impossibility of conducting work placements at the companies (work-bases learning) | - online visits to companies (in the case restaurants or other catering establishments); <br> - live-stream from a professional kitchen with the chef/cook talking about his/her daily activities while actually working. |

| | |
|---|---|
| - limited opportunities for exercises and consolidating knowledge and skills | - planned online sessions for simultaneous implementation of practical tasks by a group of students with the guidance of the trainer/instructor – usually for a recipe or a cooking technique that was already demonstrated by the teacher (planning such classes in the syllabus itself) |
| - the commitment of the trainees to supply the ingredients and products for cooking at home by themselves | - the establishment of a fund or searching for additional funding (by the state or other), for ensuring the supply of ingredients;<br>- issuing vouchers for the students to buy the ingredients themselves or organizing the joint delivery of the same set of products to all students (in cooperation of a seller/supplier). |
| - the need for good internet, phone/camera, computer and skills to work with them, etc. | - assurance of a minimal set of devices to the teachers to be able to execute their tasks, to perform online demonstrations and sustain communication with the students in online training;<br>- specialized training provided to teachers on how to operate the chosen LMS or a series of seminars to educate them in using various ICT tools and applications;<br>- setting minimum criteria / parameters for the students in the usage of their own devices for online training (nowadays almost all people possess at least one device), or provision of a device for those who have not such;<br>- training or detailed instruction of the students on the used software in the online teaching process (LMS, applications, communication channels, etc.) |
| - students allow themselves to seek contact with the teacher at any time (outside of the work hours or consultation sessions) | - us of common platform with protocols for communication and interaction between the trainer/instructor and the trainees |

*Portugal:*

The answers given by the participating entities to the question *"What difficulties did you meet in the organization of the online practical training?"* during the survey in Portugal are quite similar to those described by the previous point for Bulgaria so here we will outline only the new aspects or country-specific issues mentioned by the respondents:

A large group of the interviewed trainers mentioned that the greatest difficulties encountered were in two main directions:

- *communication and attitude issues:*

Among these are: getting the attention of trainees/students, motivating them, the fact that they did not turn on the cameras because most were "embarrassed", "they were always anxious", did not respect the schedules, did not know how to communicate with each other and with the trainer/teacher, poor attendance, interference and noises from family members, distraction and lack of concentration. All of these can be overcome by proper education and/or training of the students about the new learning environment and giving them time to understand and know it butter; preparation of detailed instructions

and protocols on how to communicate and behave during online classes and within the virtual learning environment in general; setting clear expectations for their attitude and performance (just like for in-class activities – set boundaries for visual appearance, health condition, etc.)

- *technical issues:*

Among them: working with several platforms simultaneously, and in a short learning time, and some difficulties in working with digital platforms in general. The so-called "background noise" caused by external factors during online sessions can also be pointed out as a difficulty. The solutions identified here again point at preparation of the online activities not as for a usual class, but for virtual class: e.g. foreseeing the possible technical problems and planning of protocols in such cases, preparation of the teachers to use the devices and software for online training, establishment of rules to be followed in terms of ensuring a "quite" learning environment, etc.

## *Spain:*

In Spain, due to COVID-19, the face-to-face courses in cooking professions had to be limited in terms of allowed number of students in one classroom (as was the case in other countries). In this situation the Spanish providers (the particular example is shared by FASE) came up with a blended solution: use of internal conference systems – they were not put online, but used as a local area network. The teacher is conducting live classes with a small group of students (up to the allowed number) in the main classroom and from there, a live-stream (by sharing the screen) is established and projected to other students in different classrooms (also divided in small groups). This solution is applicable for VET providers having more than one separate training rooms and under the condition that limited number of people are allowed in one room (up to 6 for example). The positive point was that it allowed face-to-face students in several classrooms and cross video-conferencing, this way several teachers broadcast to several classrooms without lowering the quality. It also allowed flexibility and stimulated the teamwork, since the students could participate through a delegate who would send questions to the teacher. The disadvantages were that, by using multiple videoconferencing applications there were some conflicts with microphones.

Other difficulties encountered by the teachers in Spain were related to technical issues and hardware. Teachers were asking for better technical resources: movable cameras, wireless microphones, better equipment (laptops, computers), better lighting, which can improve the online practical sessions. As mentioned above, these could be solved by an investment on behalf of the VET provider in equipment or by the state (with attracted or dedicated funding).

The difficulties related to the students were mainly about the implication of students in the course, maintaining them active and engaging them in all the tasks and activities that were performed. Solutions are also identified and mentioned in the previous points but mainly focused on more interactive activities, asking for often feedback from the students even during the classes (for example ask them: "Are you ready for the next recipe?", "Show me your results on the camera", etc.).

Other barriers encountered were related to the lack of specific training of managers and those responsible for training in public and private entities, the dependence on technology and technology technicians for its implementation and the need to learn how to use them,

knowing their advantages and limitations. Moreover, there is scarce research on appropriate methodologies and analysis of their advantages and disadvantages.

The barriers that affect students are mainly: the scarce offer of training actions that use ICTs for groups of low-skilled workers (adult learners), the existence of groups with important deficiencies in what concerns the use of technologies, the generalized lack of habit for self-learning, above all on the part of people from the weakest groups when faced with employment. There is also a need for students to have their own infrastructure with the capacity to transmit text, sound, images, videos, files, etc. But an agile broadcasting system without taking into account the capacity of the transmitter and receivers would be a failure. So, the teachers and students need to understand the ICT systems and tools in order to be able to use them.

## North Macedonia:

Most trainers expressed dissatisfaction with the use of online tools for practical training due to the great technical problems they (and the students) experienced and the lack of sufficient conditions for holding such teaching (home kitchens are not usually adjusted for the purpose, unless there is special preparation for it). Teachers and VET providers were concerned about the creation of the kitchen environment suitable and equal for all the students in their home. Also, they took into consideration that all the students came from different social backgrounds and some of them will not have the proper equipment at their homes or raw materials to cook.

They believe that students must have more direct contact with instructors during classes so that they can acquire better skills.

They also expressed dissatisfaction with the materials they had at that time and had to improvise to organize the classes with not structured training contents available (such as clips on Internet, scanned students' books, etc.), which resulted in student's irregular attendances and lack of interest. As already mentioned, specially designed and structured training content (like the one proposed in VET@HOME project) will eliminate this risk.

As a positive aspect, they pointed out that during the pandemic, they still managed to protect themselves and the health of the students, and at the same time, the students did not lose much of their training. In extreme circumstances they were forced to learned to learn new teaching methods, technologies and tools, that they continue to use now after the COVID-19 pandemic, combined with physical classes.

## Croatia:

In Croatia all of the above described problems also appeared in smaller or larger scale. What was a positive experience (at least in the state-provided vocational education) was that the government provided a unified LMS to all public vocational schools free of charge. The system was designed as a supplementary tool but appeared to be very handy and thanks to the quick mobilization of resources and efforts was introduced into the education system relatively fast. This comes to demonstrate that the pre-preparation and strategic planning is critical when it comes to transferring the traditional VET to the future (in this case to transfer the training online).

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VET @ HOME

## 4. Innovations and best practices in delivery of virtual practical training in distance / blended learning

*With digital technology, the role of educators and trainers is not any more to deliver information, but to assist in interpreting information. Therefore, this chapter steps on the project partners' experience in the specific context of their country and shares peer advices, real-life examples, case studies, and hints for structuring and fostering socially engaging learning in an online environment. Here you will find:*

- *good practices that the partners examined and/or implemented, as examples to be followed and multiplied by the trainers/tutors as innovations;*
- *advices and tips on how to use and combine online-based training resources (in general)*
- *additional ideas for introducing innovations that rely on interactive training*

Since the best practices were identified and described by the VET@HOME project's partners in their countries' context and are related to the particular state and reality, below they are presented as contribution of the partners by countries. All of them reflect the experience of the VET providers gathered during the COVID-19 pandemic in efforts to sustain the practical training for culinary art-related professions from the catering industry.

### *Bulgaria:*

During the research conducted in Bulgaria, the interviewed VET teachers and instructors for practical training in the profession of Cook shared some curious aspects that they introduced in order to make the distant practical training more interactive, interesting and engaging for their students, such as:

- creating in the group chat (or other messenger application) a thread for virtual discussion of a particular recipe and its variations. The task was to search for and share other variations of a popular recipe that are prepared in different regions/communities/cultures, etc., thus encouraging the student to search for other external sources of information and inspiration, to try different technologies and to share the result, to receive appreciation for their work and creativity, etc.;
- organizing peer assessment or type of contests among the trainees/students - each student presents his/her dish and also rates the dishes, prepared by the others, and then the group discuss the peer-evaluation and selects the best dish while learning from the example;
- encourage the trainees/students to search for training resources themselves and prepare presentations on different cooking techniques, ingredients, equipment, etc. Then share the presentations and discuss with the group in virtual classrooms or forums;
- encourage the trainees/students to make a video of themselves while they are shopping for groceries (on the market) and explain how they choose the products, what are the specifics of each ingredient, etc. Share the videos in the virtual classroom and discuss the findings;
- the teacher makes a video of himself while explaining and demonstrating a cooking technique or recipe, then shares it with the learners together with written instructions and gives an assignment to prepare it at home and to make photos/videos of the process.

## Portugal:

Regarding this topic about the best practices during the virtual practical training in distance, the best methods can be defined as those that use demonstrative methods and more practical activities/tasks, where the trainer assumes a central and active role, since s/he is the one who will show how to do it and the best way for it.

In the specific case of the culinary area, it is very useful to carry out live confections, mise-en-place, explanations on how to cut properly different products, thus functioning as a kind of workshop and/or tutorials. Other simple procedures that the trainer can organize and that the trainees feel more motivated to participate in as shared in the interviews could be sharing the screen of the trainer and watching short videos.

According to the research conducted in Portugal, in terms of identifying the training topics/ content suitable for virtual practical training without affecting the quality of the teaching-learning process, the next topics were listed: pre-preparation and use of raw ingredients in the kitchen; equipment and utensils used in the kitchen; more or less more introductory and basic topics that do not require specialized training facilities and environment and use simple tools and materials for demonstration purposes.

In terms of resources that the teachers/instructors consider useful and the trainees most prefer we can mention the following: recorded videos explaining how to make a certain dish and how to manage a kitchen, tutorials, use of high quality cameras for video-conferencing, dynamic platforms and internet network coverage; computer/laptop, applications with small videos with content and practical situations.

## Spain:

In terms of innovative methods for delivery of virtual practical training the Spanish project partner FASE being a VET provider (center for adults training) specialized in offering courses for Cook profession, managed to establish own approach and platform to support this training. Since the very beginning of the COVID-19 pandemic, FASE used a rather innovative method through own e-learning platform where there was a video streaming embedded in the corresponding "virtual classroom". The teacher broadcasted live the cooking classes via YouTube and it was projected directly on the platform in the respective space for the students in a certain class/group. In the same platform/page, the student could access a chat where s/he could ask questions or share doubts. The teacher was able to see on his screen the questions and answer them immediately. The same e-learning platform has a messaging system between the teacher and the student in order to facilitate their interaction. There is also a forum of discussion for all the students to interact among them and with the teacher on the sessions or different recipes used or techniques learned.

Another innovative method was established in order to overcome the problem with the ingredients' supply to the students while they are practicing at their home kitchens during the pandemic. It was decided to enroll the students in online "Kit" cooking classes for witch the training organization provided a pre-defined set of the necessary food ingredients for the class. This was possible thanks to the collaboration with the Central Market – a n agreement was concluded for the market to send to each student the necessary ingredients before each class. Delivery was allowed and in this way each student was prepared and

had the same set of ingredients sent over to his/her home before the planned class, which made the task easier since they didn't have to go buying it themselves and to work with different quality and quantity.

## North Macedonia:

The respondents in the survey in N. Macedonia answered that they were most satisfied that the students could cook something themselves and then demonstrate without much help from the mentors who speaks about the quality of the student and their devotion to the classes. It was considered that more independent preparation of the students and giving them more responsibilities resulted in higher level of engagement.

In terms of the teaching methods that had the greatest effect, the dedication and constant communication with the students gave the greatest result, i.e. included cameras on, discussions, experience sharing, visual observation of the work by the trainers, filming videos from the students etc.

## Croatia:

The most common "innovation" used by teachers in Croatia was trying to simulate as much of the work-based learning (WBL) as possible. Students had to, for example, make catering at home. This was an excellent way to engage students more than just with simple tasks which were mostly used. This type of tasks should be used with caution because of the financial burden they can have on the students. In this case the VET provider should ensure and help as much as it can.

During the pandemic and lock-down regimes, the VET institutions realized that using platforms means that the materials are not always nearby and easy to access. In this case the teacher does not have the opportunity to add an ingredient or a new component to the recipe the class is exercising like when it is face-to-face or in a real time environment. This brought a better planning of the practical classes and more efforts were made in the preparation of detailed and exact written instructions for the students that were then updated based on the feedback from students.

More flexible timeframes were also something which was considered good by the students, but this had to be approached carefully because of the possibility to have the deadlines of the tasks all at the same time which can be a challenge for younger students to coordinate themselves and manage their time. Variety of quizzes and games which target the preparation part were also used.

## 5. Conclusions

As outlined before, the Protocol created is a written plan that defined the procedures to be followed for delivering the practical training course in a virtual environment with focus on culinary-arts professions, "Cook" in particular. The most important rules are related to the design and structuring of the course (defining all the important elements: learning components, time distribution, norms, roles and assessment), establishing a positive online environment (specific adapted didactic means, defining the requirements for its delivery and the technical abilities needed), in order to finally deliver the online practical based training (with the importance of knowing the trainees, providing interaction, giving feedback) and use the best means to assess it.

The Guidebook is related to the VET@HOME platform and how to make the most of it throughout the practical training processes, stressing the main pedagogical strategies for the delivery of online-based practical training in all partner countries, pointing out the means that favor the interaction between the trainer and trainees in order to have a successful training, engaging the trainees in the best way possible.

The Guidebook also stressed out some difficulties faced in the partner countries during COVID-19 and how they were overcome, pointing out the best practices and innovations that came out of the problems encountered.

The new tools make it possible to increase the learner's responsibility in the learning process, so the importance of the teacher as a guide is reduced and that of the designer / creator of the contents increases (this may or may not be the same person). He/she can and must create mechanisms of interactivity that impose on the student the duty to respond, to contribute, to create, to reflect, to collaborate.

On the other side, training and education are complex and multidisciplinary processes, so they must also be approached in a multidisciplinary way. Teachers (designers, teachers, tutors...) must understand that these are new work tools in common use. They must be familiar with them in order to make use of them, and to be aware of their limitations. With their use, some of the skills become less important (such as deepening knowledge and memory), and others increase (ability to motivate, to dosify, to create complementary actions...).

Learners must take an active, very active role in the learning process. The electronic media collect and display a large amount of content which each learner has to interpret partly without direct support from the teacher. Only by interacting with the systems can they succeed. So, interacting and acting are parallel concepts.

> **We remember:**
>
> *"10% of what we read, 20% of what we hear, 30% of what we see, 50% of what we see and hear, 70% of what we discuss with others, 80% of what we personally experience and 95% or what we teach others"*
>
> *Edgar Dale*

This fact is even more accurate when it comes to cooking training, since the trainees should experience by themselves all the activities/steps of a recipe in order to learn how to do it well.

Thus, the consortium of the VET@HOME project hopes that the Protocol and Guidebook provided will help trainers in their daily online-based practical training since it is the fruit of best- practices and innovative experiences carried out in the partners' countries.

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i https://leverageedu.com/blog/syllabus-vs-curriculum/#:~:text=The%20curriculum%20contains%20the%20overall,discipline%20under%20that%20particular%20course.
ii https://en.wikipedia.org/wiki/Electronic_media