



**DDBS**  
**LEARNING**

The Distance, Demonstration-Based  
Skill Learning Method



# DDBS LEARNING Curriculum



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## 1. Introduction to the DDBS Learning

### 1.1 DDBS Training

The Distant Demonstration Based Learning method is a demonstration method developed by M. Katharakis, Linardakis, A. Karitis, H. Rautert, A. Antoniou, E. Zeaki as the solution (to teach in the COVID-19 period) of teaching of practical skills' via distance learning, following the instructional model of attention, retention, reproduction, and motivation.

Steps of DDBS-L method

1. Phase one: Definition of the skills to be trained
2. Phase two: Definition of Assessment parameters for efficient skill transfer
3. Phase three: Definition of Skill Observation Lines of Sight (SOLOS) and Voice channels (VC)
4. Phase four: Determination of the DDBSL setup components to efficiently deliver SOLOS and VCs
5. Phase 5: Distant Learning online demonstration

### 1.2 Aim of the DDBS training

The idea of the DDBS-Learning is a response to the report from the ET2020 working group on adult learning. Based on the report the COVID-19 pandemic has forced a digitalization of education and rapidly pushed education and training systems to explore new ways of teaching and learning. The impact of the COVID-19 crisis on adult learning (AL) has also been acute. Participation in adult learning has been impacted, with adult learning providers and educators facing multiple challenges to deliver courses especially concerning practical skills.

The main challenges relate to:

- transforming face-to-face practical courses into online courses
- establishing online relationships with learners
- securing the required equipment and infrastructure.
- a lack of sufficient skills of the practitioner

Thus, there is a need to learn more about how different groups are coping with the transition to distance learning, and what can be done to help them in order to be consistent with equal access to learning opportunities.



The crisis, and its widespread impact on economies and societies globally, have also highlighted the prominent role of adult learning in a COVID-19 affected world. Within and beyond the crisis, adult learning is key in ensuring people can obtain the (new) technical skills and competencies required in a COVID-affected labour market and society.

Hence, the DDBSL training has been developed to train the target group in order to facilitate more effective, efficient and equal digital courses.

### 1.3 Target Group – Whom it may concern

The Target group of the DDBSL Learning is every trainer and educator that are using the Demonstration based methodology for their face to face courses and wish to develop their skills in order to be able to do effectively in an online environment.

### 1.4 Training methodology

The training methodology for the DDBSL Learning is going to be blended and is going to be realised as 24 hours of classroom or workshop-based instruction and up to 20 hours of self-directed learning.

### 1.5 DDBS Training Programme Approach

This DDBS training programme is based on the European Qualifications Framework (EQF), a translation tool that helps understand and compare qualifications awarded in different countries and by different education and training systems. Its eight levels are described in terms of **learning outcomes**: knowledge, skills and competencies. The competencies described herein, are interrelated and interconnected, and are analyzed in terms of knowledge and skills, provided in a list of learning outcomes, which offer inspiration and insight for both trainers and trainees. Therefore, the following definitions are critical to establish an understanding of the programme structure:

- 1. Learning outcomes:** Learning outcomes are statements of what a learner knows, understands and is able to do after completion of learning. Such statements can be designed and used for educational planning and curriculum development or for different types of accountability such as legal accountability or professional accountability.
- 2. Knowledge:** Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual.



3. **Skills:** Skills are the ability to apply knowledge and use expertise to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).
4. **Competence:** Competencies are ‘the proven ability to use knowledge, skills and personal, social and methodological abilities in work or study situations and in professional and/or personal development. Competences are described in terms of responsibility and autonomy in the EQF.

Moreover, in order to achieve the educational goals set by the training programme, the themes selected for the training, as well as the extent and depth of their content, were determined in accordance with the educational needs identified at the occupational profile, taking into consideration the needs of the target group as well as the demands of labour market.

Specifically, the criteria for determining the educational content were:

- The clarity and completeness of the content,
- Avoiding contradictions, overlaps or gaps in the selection, classification and organization of the content of the modules,
- The full relevance of the thematic content to the stated objectives pursued through the implementation of the educational program.

## 2. Contents at a Glance

The DDBSL Learning Curriculum consists of five main modules as following:

**Module A: Skills / characteristics of an adult educator providing online courses**

**Module B: Teaching methods and techniques for distance learning**

**Module C: Digital tools of distance learning**

**Module D: DDBSL method**

**Module E: Methodology for designing online teaching and learning activities, courses, and assessment for practical skills using the DDBS method**

### 3. Training Content

#### 3.1 Detailed Description of the training content

The DDBSL Learning Curriculum consists of five main modules. Please see the detailed description by each of the modules as following:

##### **Module A: Skills / characteristics of an adult educator providing online courses**

###### **a) Introduction to the module:**

The first module of the curriculum focuses on the skills and characteristics which should have an adult educator who provides online courses. These skills include strong communication abilities, as online educators must effectively convey information and engage with students through digital platforms and online learning. The online training has become an essential part of professional development, since it allows to reach a wider audience and provides learners with the flexibility to learn at their own pace. The course will cover a range of topics related to online training, including course design, cultural awareness, and evaluation. By the end of this course, the trainers will be equipped with the skills and knowledge necessary to design, deliver, and evaluate effective online training programs.

The Unit 1, presents alternative methods of education and replace the traditional ones with new more innovative which suit better in the modern age, like lectures – online lectures, discussion – virtual group discussions, etc. In this unit, the “learning outcome” is being defined and explained in order to make clear to the educator which the learning outcomes may be. Moreover, during Unit 1, the educator can learn how to prepare for an online training and how to transform a traditional way of learning to an online one.

The main objective in the second unit, is the adoption of the training to the target group. More specific, every group has its own learning characteristics (e.g. Prior knowledge, learning styles, Motivation, Technical proficiency) which every educator should recognize and apply to every group different learning styles (such as visual, auditory, or kinesthetic). In this way, the trainer can create a diverse and engaging course that meets the needs of all learners. The importance of this unit includes the course design, the trust between the trainees and the trainers, etc.

The third and last unit aims to cultivate cultural awareness in online training. More specifically, through this unit, educators will learn new techniques for promoting inclusion of a diverse group by encouraging active participation, providing flexible learning options, celebrating diversity, encouraging cultural exchange, providing access to resources such as cultural sensitivity training and language translation services, etc.

###### **b) Main Aim & Objectives:**

This course has been designed to provide trainers with the skills and knowledge they need to effectively deliver online training. The objective of Module 1 “Module A: Skills / characteristics of an adult educator providing online courses” is to equip trainers with the tools and techniques necessary to create engaging and impactful online training experiences. In today's digital age, online training has become an essential part of professional development. It allows trainers to reach a wider audience and provides learners with the flexibility to learn at their own pace. This course will cover a range of topics related to online training, including course design, cultural awareness, and evaluation. In this 4-5-hour course, educators will learn



about the main parts of an online course, the learning outcomes, and how to recognize the learning characteristics of the group. The module also covers cultural awareness and techniques for promoting inclusion and discuss how to adapt training to the target group.

c) **Key words:** online training, cultural awareness, skills, characteristics, inclusion of a diverse group of trainees, content, assessments, interaction, feedback, target group

d) **Expected Learning outcomes**

Knowledge	<ul style="list-style-type: none"> <li>• Describe the main parts of an online course</li> <li>• List various activities that are easier transferred online</li> <li>• Outline the Learning Outcomes of an online course</li> <li>• Recognize the learning characteristic of your group</li> <li>• Describe what Cultural Awareness is</li> <li>• List techniques for promoting inclusion of a diverse group of trainees.</li> <li>• Explain the importance of adapting the training to your target group</li> </ul>
Skills	<ul style="list-style-type: none"> <li>• Prepare the training in order to take place online</li> <li>• Integrate the components of face to face courses to online ones</li> <li>• Evaluate your trainees in order to adopt the training course to their needs</li> <li>• Practice cultural awareness during your training sessions</li> </ul>
Competences	<ul style="list-style-type: none"> <li>• Act independently in designing the transformation of a face to face course to an online one.</li> <li>• Adapt the training course in order to correspond to your trainees characteristics and culture</li> </ul>

## Module B: Teaching methods and techniques

a) **Introduction to the module:**

This module will examine a variety of teaching methods and techniques, their characteristics, their pros and cons, and the situations in which they can be used by trainers or educators in order to achieve effective and efficient teaching. We will also look at assessment methods, their traits, strengths and weaknesses, and how each of them can benefit an online course. Upon completion of this module, trainers and educators will be able to apply a variety of methods and techniques for teaching and assessment in their courses, as well as make informed decisions about which methods are most appropriate for their course.

In the first unit, trainees will discover different teaching methods and techniques which are applied in online teaching. The important features and traits of each teaching method will be examined, to provide the educator with a well-rounded view of each method. At the end of this unit, educators will have gained an understanding of the different types of teaching methods and their characteristics, as well as how these can serve to facilitate and optimize their teaching.

In the second unit, we will break down the strengths and weaknesses of each teaching method, with a strong emphasis and focus on online teaching. Their suitability will be examined, not only in terms of online teaching but also in terms the subject of teaching and the medium of teaching. Upon completion of this unit, trainees will be able to select the teaching methods best suited for their course.

The third unit of this module will examine the best practices in applying the knowledge acquired in the previous two units. Specifically, this unit will demonstrate how to apply each teaching method with practical advice. When the trainees complete this unit, they will have gained a practical understanding of how to apply each of these methods and in which instances they will be most useful and effective.

The fourth and final unit will discuss different assessment methodologies and techniques which can be applied by the educator to evaluate the learners' progress. At the end of this unit, the trainees will be able to not only select the most suitable assessment method for their course, but to combine different assessment methods in order to reach the optimal solution.

**b) Main Aim & Objectives:**

The objective of this module is to help educators gain a deeper understanding of various techniques they can use in their classroom and how those can serve them best. Specifically, this module aims to equip educators with the right tools to be able to make informed decisions about the best methods to employ in their courses, to be able to judge which are the most suitable techniques depending on the class' skill level, the subject being taught and the medium of teaching so as to achieve the best results.

**c) Key words:** teaching method, teaching technique, synchronous learning, asynchronous learning, formative assessment, summative assessment, live online lectures, pre-recorded video lectures, flipped classroom, online whiteboard, presentation

**d) Expected Learning outcomes**

Knowledge	<ul style="list-style-type: none"> <li>• Define the teacher-centred and the student-centred approach in learning environments.</li> <li>• Describe various teaching methods and techniques and their features</li> <li>• Outline the instances for which each method is most appropriate</li> <li>• Summarize the pros and cons of each teaching method</li> <li>• Relate the importance of the type of subject being taught when selecting a teaching method</li> <li>• Relate the best practices in the application of each method</li> <li>• Distinguish between formative and summative assessment</li> <li>• Name the most common online assessment techniques</li> <li>• Recognize the strengths and weaknesses of different assessment methods</li> </ul>
Skills	<ul style="list-style-type: none"> <li>• Compare teaching methods in different contexts</li> <li>• Identify the elements that suggest the best teaching method in given instances</li> <li>• Select the most appropriate teaching method based on topic, skill level and manner of teaching</li> <li>• Illustrate the purpose for which each assessment method is best to use</li> </ul>
Competences	<ul style="list-style-type: none"> <li>• Evaluate each teaching method's appropriateness for a particular training course</li> <li>• Construct a training strategy using a combination of teaching methods and techniques, based on their appropriateness</li> <li>• Formulate an assessment strategy using different assessment methods to maximise the effectiveness of formative and summative assessment</li> </ul>



## Module C: Digital tools of distance learning

### a) Introduction to the module:

The current module on “**Digital tools of distance learning**” is designed to provide vocational educators with a comprehensive understanding of the digital tools available to them for effective distance learning of practical skills. The module consists of four units, each focusing on a specific aspect of digital tools for distance learning. Overall, this module will equip vocational educators with the knowledge and skills to effectively use digital tools to create engaging and effective online learning experiences for their learners.

The first unit will introduce **digital tools that can be used to transfer knowledge to learners**. It will cover various tools like learning management systems, video conferencing software, virtual whiteboards, and interactive online tools. Educators will learn how to create engaging and interactive online content that can be used to deliver information to learners.

The second unit will focus on **digital tools that can be used to develop learners' skills**. It will cover various tools like simulation software, interactive online tutorials, and gamification. Educators will learn how to design effective online learning activities that can help learners develop their skills in a virtual environment.

The third unit will introduce **digital tools that can be used for learners' assessment**. It will cover various tools like online quizzes, surveys, and assessments. Educators will learn how to design assessments that can be taken online and how to use digital tools to grade and provide feedback to learners.

Finally, the fourth unit will focus on **digital tools that can be used to evaluate the effectiveness of training**. It will cover various tools like learning analytics, online surveys, and feedback forms. Educators will learn how to use these tools to measure the effectiveness of their training programmes and make improvements where necessary.

### b) Main Aim & Objectives:

The main aim of the "Digital tools of distance learning" module is to provide adult educators with an understanding of the various technologies, approaches, and concepts that are used to support distance learning and facilitate online education of practical skills, acquiring the knowledge and skills necessary to effectively use digital tools for distance learning leading to improved learning outcomes for their learners. The module is designed to equip educators with the tools they need to create engaging and effective online learning experiences for their learners.

The concrete objectives of the module are as follows:

- To introduce educators to the benefits and limitations of using digital tools for distance learning.
- To provide educators with an understanding of the various digital tools available for knowledge transfer, skills development, learners assessment, and training evaluation.
- To teach educators how to design effective online learning activities that use digital tools for knowledge transfer and skills development.



- To teach educators how to use digital tools to assess learners' knowledge and skills in a virtual environment.
- To teach educators how to use digital tools to evaluate the effectiveness of training programmes.
- To provide educators with hands-on experience using digital tools to design and deliver effective online learning experiences for learners.

To encourage educators to reflect on their teaching practice and identify areas where digital tools can be integrated to improve learning outcomes for their learners.

### c) Key words:

1. **e-Learning:** E-learning refers to the use of digital technologies to support the delivery of education and training. It encompasses a wide range of online educational resources and activities, including online courses, multimedia learning materials, and virtual classrooms.
2. **Online learning:** Online learning refers to the delivery of education and training through the internet. It allows learners to access educational materials, participate in activities, and engage with instructors and peers from anywhere with an internet connection.
3. **Virtual learning:** Virtual learning refers to a type of e-learning that typically involves synchronous or asynchronous online interactions between learners and instructors using virtual tools and platforms.
4. **Distance education:** Distance education is a type of education that is delivered to learners who are separated from the instructor by time and/or distance. It is typically delivered through online or digital means, such as e-learning platforms, video conferencing, and learning management systems.
5. **Learning management system (LMS):** A Learning Management System (LMS) is a software application or platform used to plan, deliver, manage, and evaluate a course or training program. It provides a centralised repository for educational content and enables instructors to track student progress and provide feedback.
6. **Web conferencing:** Web conferencing is a type of online communication that enables real-time, synchronous interactions between participants through the internet. It typically involves audio, video, and/or chat components, and can be used for online meetings, virtual classrooms, and other educational purposes.
7. **Video conferencing:** Video conferencing is a type of online communication that enables real-time, synchronous interactions between participants using video and audio technologies. It is often used for virtual classrooms, online meetings, and other educational purposes.
8. **Webinars:** Webinars are online presentations or seminars that are delivered via the internet. They typically involve a presenter delivering a lecture or presentation to a large audience through a web conferencing platform.
9. **Cloud-based learning:** Cloud-based learning refers to the delivery of education and training through cloud computing platforms. It allows learners to access educational resources and materials from anywhere with an internet connection, without the need for local storage on their devices.
10. **Mobile learning:** Mobile learning, also known as m-learning, refers to the use of mobile devices, such as smartphones and tablets, to support and enhance the delivery of education and training.

11. **Artificial intelligence:** Artificial intelligence (AI) refers to the use of computer algorithms and technologies to enable systems to perform tasks that normally require human intelligence, such as learning, problem-solving, and decision-making. In education, AI is often used to support personalised learning and provide real-time feedback to learners.
12. **Interactive media:** Interactive media refers to forms of digital media that enable two-way communication and collaboration between the learner and the media. This includes interactive video, games, simulations, and other types of digital content that are designed to be engaging and immersive.
13. **Synchronous and asynchronous learning:** Synchronous learning refers to learning that occurs in real-time, with learners and instructors engaging in live interactions. Asynchronous learning refers to learning that occurs independently of time, with learners accessing educational materials and resources on their own schedule.
14. **Social media for education:** social media for education refers to the use of social media platforms, such as forums, blogs, and social networks, to support the delivery of education and training. It allows learners to connect and collaborate with instructors and peers, as well as access educational resources and materials.
15. **Collaborative tools:** Collaborative tools are digital tools that enable learners and instructors to work together in real-time or asynchronously. These may include online forums, wikis, project management tools, and other types of digital tools that support teamwork and collaboration.
16. **Adaptive learning:** Adaptive learning is a type of educational technology that adjusts the learning experience to match the individual needs, preferences, and pace of the learner. It uses algorithms and data analytics to continuously evaluate the learner's progress and provide tailored feedback and recommendations.
17. **Personalised learning:** Personalised learning refers to an educational approach that tailors the learning experience to match the individual needs, preferences, and goals of the learner. It often involves the use of technology, such as adaptive learning algorithms and data analytics, to support the customization of the learning experience.
18. **Virtual reality:** Virtual reality (VR) refers to digital environments that simulate real-world experiences, allowing users to immerse themselves in a simulated world. In education, VR is often used to provide hands-on, interactive learning experiences, such as virtual field trips or simulations.

**EdTech (Educational Technology):** EdTech, or educational technology, refers to the use of technology and digital tools to support and enhance the delivery of education and training. It encompasses a wide range of digital tools, including online learning platforms, mobile learning apps, educational games, and virtual reality environments.

#### d) Expected Learning outcomes

##### Knowledge

- Explain the benefits and limitations of using digital tools for distance learning.
- Describe various digital tools available for knowledge transfer.
- Identify adequate digital tools for practical skills development.

	<ul style="list-style-type: none"> <li>• Select digital tools to assess learners' knowledge and skills in a virtual environment.</li> <li>• Identify digital tools to evaluate the effectiveness of training programmes.</li> <li>• Select appropriate formats of training depending on the digital tools chosen.</li> </ul>
Skills	<ul style="list-style-type: none"> <li>• Design effective online learning activities that use digital tools for knowledge transfer and skills development</li> <li>• Develop assessments using digital tools to measure learners' knowledge and skills.</li> <li>• Use digital tools to grade and provide feedback to learners on their assessments.</li> <li>• Choose appropriate digital tools to measure the effectiveness of training programmes and make improvements where necessary.</li> </ul>
Competences	<ul style="list-style-type: none"> <li>• Apply knowledge and skills gained from the module to design and deliver effective online learning experiences for learners.</li> <li>• Use digital tools to effectively assess learners' knowledge and skills in a virtual environment.</li> <li>• Evaluate the effectiveness of training programmes using digital tools and make improvements to ensure the ongoing success of the programme.</li> </ul>

## Module D: DDBSL method

### a) Introduction to the module:

What is this module about?

Distance education encounters many obstacles when it comes to the teaching of skills. Especially in adult learning environments where interaction and learning feedback is crucial, the limitations imposed by distance learning systems prohibit their use of skill learning. Demonstration-based teaching combines all necessary characteristics of efficient adult skill learning.

In this module, we introduce the Demonstration method as a teaching strategy and the DDBS-L method. Demonstration as a teaching strategy refers to the visual presentation of the action and activities or practical work related to the training material. While using this method, an educator demonstrates in a practical form related to the training material of the lesson. This method helps the learners for a better and deeper demonstration of the delivered training material, practical and theoretical aspects.

Also, this module introduces a method for efficient and accountable Distant Demonstration Based Skill Learning (DDBSL). By arranging observation and feedback devices in a way to observe and reflect on the skills' characteristics and information, the DDBSL method allows for the distant delivery of skills. The participants will learn:

- What is a Demonstration method
- What is the DDBS-L method
- How to include the DDBSL method in their training methods and
- How to adopt the DDBS-L method in their own educational material to deliver practical skills in an online course



- What is the pros and cons of a demonstration method

At the end of this module, "**DDBSL method**", the participant will be able to use the DDBSL method in teaching.

### Structure

This module is presented as a set of three units: 1. Introduction to Demonstration method; 2. Introduction to DDBSL methodology 3. Pros and Cons - Do's and Dont's of DDBS-L method

### b) Main Aim & Objectives:

The aim of this module is to introduce the DDBS-L method to the educators as a teaching strategy to teaching of practical skills.

Upon completing this module, you should be able to do the following:

- To understand the Demonstration method
- To learn how to use the DDBS-L method

### c) Key words:

Demonstration method, distance learning, practical skills, DDBS-L method

### d) Expected Learning outcomes

Knowledge	<ul style="list-style-type: none"> <li>- Describe what demonstration method is</li> <li>- Describe the characteristics of the demonstration method</li> <li>- Describe what DDBS-L method is</li> <li>- Describe the steps of the DDBS-L method</li> <li>- List pros and cons of the DDBS-L method</li> <li>- List do's and don't's of the DDBS-L method</li> </ul>
Skills	<ul style="list-style-type: none"> <li>- Implement the steps of the DDBS-L method in your training sessions</li> <li>- Practice the DDBS-L method in the distance learning</li> </ul>
Competences	<ul style="list-style-type: none"> <li>- Adapt the DDBS-L method to deliver practical skills online</li> </ul>

## Module E: Methodology for designing online teaching and learning activities, courses, and assessment for practical skills using the DDBS method

### a) Introduction to the module:

This module is about devising a means of teaching skills that have traditionally been taught face-to-face. In this module we work with the example of three different case studies that help us demonstrate the variety of skills that can be adapted into digital teaching and learning. It is also part of this module to address questions and difficulties that arise during the process of recording teaching material and how to best make use of it so that an ideal learning outcome can be achieved. However, the goal is not to have the learning completely asynchronous, but rather provide the knowledge for it to be asynchronous if necessary.

We start the case studies by working with welding, which is the most difficult of the case studies to digitize as it poses several difficulties that need to be overcome. Those difficulties range from visibility problems, due to the different levels of brightness, to electric interference. Welding is a skill that requires a trainer and trainee who work together closely as they both need to be close to the welded material as they both need to see the welding pool and how it changes based on the welder's movement and position. Looking at this

case study we will also address the teaching of safety instructions that are required to make sure that safety standards are held up.

Secondly, we will work with flame cutting, which precedes many welding tasks. Since we will be looking at oxyacetylene cutting the safety equipment as well as standards, previously addressed in the welding case study, can also be transferred to this case study. However, not only the benefits, but also some of the difficulties remain the same as with welding as there are serious visibility issues here as well. Luckily, the solutions discovered in the first case study can also be applied here. Another simplifying aspect is that the quality of visibility needs to be much lower when flame cutting compared to welding.

The final case study is measuring. After having altered the order of processes by putting welding first, we return to the proper sequence by having measuring as the final case study. As measuring is a means of quality control, it is only natural that it appears in the end. It is also a great opportunity to help the trainees finalize their welds by doing the quality control themselves. That way we achieve a maximum of independence by having the trainee learn how to prepare the metal, finalize the weld as well as check the quality of the welding bead.

**b) Main Aim & Objectives:**

This module’s aim is to provide guidelines and examples for teaching skills online via the DDBSL platform. By making use of synchronous and asynchronous learning, the learner becomes much more independent in his learning effort and can even work to become a trainer in the end. While these case studies focus heavily on welding, their goal is to be an example for any handcraft skill that needs to be digitized. By analysing recorded material, we also save resources, ultimately making the learning process more economic as well as more eco-friendly.

**c) Key words:**

distance learning, quality control, trainer, welding, cutting, flame, measuring, online, asynchronous, group work, analyzing recorded material, workplace safety,

**d) Small description per case study**

<p>Case Study 1</p> <ul style="list-style-type: none"> <li>- Welding</li> </ul>	<ul style="list-style-type: none"> <li>- Before the Welding process starts, the trainer explains the safety equipment.</li> <li>- The trainer records the welding process from several points of view.</li> <li>- Videos are uploaded for later accessibility.</li> <li>- Trainees, too, record their welding process for analysis.</li> <li>- Trainees analyse their welding with their trainer, peers, or by themselves.</li> <li>- Recorded Material can be saved online to be accessed by future learners.</li> </ul>
<p>Case study 2</p> <ul style="list-style-type: none"> <li>- Flame cutting</li> </ul>	<ul style="list-style-type: none"> <li>- Safe handling of the equipment is the first and most important aspect.               <ul style="list-style-type: none"> <li>- That includes the opening of valves in the correct order as well as handling the flame cutter safely.</li> </ul> </li> <li>- Working with flammable and explosive gases requires high safety standards.</li> <li>- Showing the process on a screen to a group has many advantages.               <ul style="list-style-type: none"> <li>- The trainer can demonstrate and explain while students have enough time for questions without resources being wasted.</li> </ul> </li> </ul>

**Case study 3**  
- **measuring**

- Measuring the thickness of fillet weld beads is a basic skill for a welder.
- Welds need to stick to the specifications on the WPS
- Case study demonstrates measuring a fillet weld in accordance with norms.
- DDBSL platform is great for showing the use of a 3-scale gauge in a video.
- Different points of view show the usage on a welding bead or dummy.

### 3.2 Detailed Training Programme

<b>DDBS Training Programme</b>		
<b>Modules / Units</b>	<b>Training Methodology / Duration Hours</b>	
	Face-to-face learning	Self-learning
<b>Module A: Digital Tools and Resources for Successful Managing</b>	5	6
<i>Unit A1: Developing and Delivering a training course</i> <i>Unit A2: Adapting the training to the Target Group</i> <i>Unit A3: Cultural awareness</i>		
<b>Module B: Teaching methods and techniques for distance learning</b>	5	4
<i>Unit B1: Definition of teaching methods and techniques</i> <i>Unit B2: Pros and Cons of each method and technique</i> <i>Unit B3: How to apply the most appropriate methods and techniques</i> <i>Unit B4: Assessment methodologies and techniques</i>		
<b>Module C: Digital tools of distance learning</b>	5	4
<i>Unit C1: Digital tools for knowledge transfer</i> <i>Unit C2: Digital tools for skills development</i> <i>Unit C3: Digital tools for student/ learners/trainees assessment</i> <i>Unit C4: Digital tools for training Evaluation</i>		
<b>Module D: DDBSL method</b>	5	4
<i>Unit D1: Introduction to DDBSL Methodology</i> <i>Unit D2: DDBSL methodology Guidelines</i> <i>Unit D3: Do's and Dont's of the DDBSL methodology</i>		



**Module E: Methodology for designing online teaching and learning activities, courses, and assessment for practical skills using the DDBS method**

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*Unit E1: Case study 1 – Welding*

*Unit E2: Case study 2 – Flame cutting*

*Unit E3: Case study 3 – Measuring*

## Description of the suggested Training Techniques

Please see below some indicative Training Techniques per type of training methodology.

- **Power Point Presentation**

*The most well-known technique used for classroom training. Power Point Presentation can be combined with any other lecturing technique. For its effective implementation a Power Point template has been designed, in order to help trainers to deliver their lectures. Apart from basic written information, PPT's will also include visual stimulators, as images, graphs and tables, in order to better describe and frame their topic of interest.*

- **Open Questions**

*Open questions consist of a question that cannot be answered with a single yes or no but requires a developed answer. It is raised over a matter which is undecided and invites trainees to provide longer responses in order to demonstrate their understanding, using their own knowledge and/or feelings.*

*Open-ended questions also tend to be more objective and less leading providing trainees the context to construct a free-form answer. Open-ended questions typically begin with words such as "Why" and "How", or phrases such as "Tell me about...". Open ended questions are useful for examining in depth understanding and comprehension while at the same time they may question reasoning or critical thinking.*

- **Closed Questions**

*Closed Questions and answers technique consist of composing specific questions that will be asked to the trainees. This technique increases trainees' participation and encourage active learning. In this project six different formats of Closed Question and answers will be used, namely:*

- *True or False,*
- *Multiple Choice,*
- *Multiple Response,*
- *Multiple Choice Text,*
- *Sequence Matching Questions*

*True or False format is mostly used in order to emerge a crucial difference between two sentences, while multiple choice asks the learner to select the most appropriate option. Multiple response is similar to multiple choice but provides more than one correct answer. Multiple choice texts extends the multiple choice technique in a context of a whole text with gaps filled by various provided choices. Sequence matching is a procedure that asks the learner to match terms of two groups while Word Bank consists of a text with gaps and a provided pool of words aiming to be placed in the correct place in order the text to make sense. Closed questions are often used in assessments; therefore, this technique is useful when preparing trainees for exams.*

- **Video Analysis**

*The main aim of video analysis is to create resources which objectively display key information and facts about an activity that can be used to support and enhance the feedback process.*

*When deliver training sessions on video analysis tools to a group of trainees, of whatever the level of education or experience, it is a good practise to base the analysis on three main but trivial steps:*

- *Present video*
- *Ask the trainees for key messages*
- *Ask important questions and get the feedback from the trainees*
- *Provide additional coaching or feedback*

- **Group Exercise**

*In a group exercise a cohort of trainees work together through a given scenario or problem to identify and explore a solution. Then they have to present their solution(s). This technique provides the opportunity to participants to use multiple skills, from problem solving to presentation skills as well as appreciating the opinions of others and working effectively in a team.*

- **Role playing**

*During a role-playing activity trainee take on specific roles (based on a predefined scenario) and act out the views or actions associated with those roles interacting under a new perspective with their co-trainees.*

*Those roles may involve experiencing different points of view or putting into practice certain skills and approaches. For example, interviewing for a job position or assessing a job seeker to identify skills. etc. Role playing is more effective when it involves, supports and encourage interaction and communication, allowing everybody to participate.*

- **Case study**

*The case study is a method which provides descriptive situations which stimulate trainees to make decisions. The purpose of the case method is to make trainees apply what they know, develop new ideas to manage a situation or solve a problem.*

- **Self-directed Activity**

*In a self-directed activity, the learner is provided with a case study or another type of challenge and is requested to provide comments, express opinions or resolve an issue. Feedback is provided to the learner at the end to ensure that the activity is effective enough for the learner.*

- **Bibliographic Review**

*A bibliographic review or literature review is a type of review resources. A bibliographic review is a scholarly paper, which includes the current knowledge including substantive findings, as well as theoretical and methodological contributions to a particular topic. Literature reviews are secondary sources, and do not report new or original experimental work.*

*A literature review has four main objectives:*

- *It surveys the literature in your chosen area of study*
- *It synthesises the information in that literature into a summary*

- *It critically analyses the information gathered by identifying gaps in current knowledge; by showing limitations of theories and points of view; and by formulating areas for further research and reviewing areas of controversy*
- *It presents the literature in an organised way*

*A literature review shows that its contactor has an in-depth grasp of a subject.*

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# DDDBS LEARNING

The Distance, Demonstration-Based  
Skill Learning Method



ΚΕΚ ΤΕΧΝΙΚΕΣ ΣΧΟΛΕΣ  
ΕΠΙΜΕΛΗΤΗΡΙΟΥ ΗΡΑΚΛΕΙΟΥ

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