



Report R3.5: Manual for Teachers Training

Cyprus Productivity Center



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1 Executive Summary

This report R3.4, is a comprehensive reference manual of the content of Train the Trainer course, that will be further developed in the ECoVEM Project for the application of skills and occupational profiles that have been identified and analysed in the project.

The term 'Train the Trainer' can be defined as a structured design for building the capacity of trainers to deliver effective training interventions. TTT is a teaching method that specializes in the development of new or experienced instructors or facilitators.

The manual is designed for training of trainers in a 25-30 Hour workshop and uses the mixture of presentation, small group work, plenary discussions, participatory presentations, video films, role plays and energizers. The content is organized into eight (8) modules that provide a structured guide to developing the key competencies in teaching and training.

Additionally, the manual covers two extra modules, that focuses on the practical application of renewable energy technologies, and Microelectronics (including energy and resource conservation, economics, financing, technical and engineering aspects, regulatory issues, energy storage, monitoring and verification)

The manual uses a participatory, and interactive training methodology, which require that the training participants are actively involved. Exercises are designed to take advantage of the skills, knowledge and experience participants bring with them. Most of the exercises are elective, meaning they were designed to elicit, draw and or even provoke responses and use participant's knowledge as the basis for discussion and learning. Using this approach allows participants and trainers to identify and focus on local needs and adapt the training to fit their professional skills.

Analytically course manual covers nine (8) major areas:

1. Principles of adult learning
2. Lesson planning and preparation of training
3. Training needs analysis
4. Development of a training course
5. Practical instructional training presentation skills
6. Evaluation and assessment of learner performance
7. Renewable energy technology and applications
8. Applications of Microelectronics in industry

2 Introduction

Background Information

ECoVEM project brings together VET centres, polytechnics, industrial associations, social partners to establish European Cooperation platform of Vocational Excellence in Microelectronics to tackle the challenges of: digitalisation, artificial intelligence, green technologies, gender equality and technology, integration of migrants. ECoVEM builds on and complements the strengths of national VET systems in countries with more-advanced VET and supports the not so advanced regions to achieve VET excellence. ECoVEM implements innovative instructional approaches towards life-long capacity to self-regulate learning, hard skills and soft skills using the ecosystems-based theoretical models and performance support systems.

The Cyprus Productivity Centre is one of the partners in the Erasmus programme entitled "European Centre of Vocational Excellence in Microelectronics - ECoVEM". Within this framework, it has prepared this reference manual for the "Train the trainers" training course.. The manual is addressed to trainers of technical vocational training and education regardless of sector and subject, executives of companies and organizations who wished to engage in the Training of their technical staff or to enrich their knowledge. Priority have been given to people working in fields related to Microelectronics and to people who wish to acquire practical knowledge regarding the modern technology of RES, Microelectronics and energy applications.

Main Objectives

2.0 Course Objectives

By the end of the course, delegates will have acquired capabilities to:

- Understand the skills and attributes required for someone being an excellent trainer
- Adapt learning and learning style to the occasion and the audience
- Comprehend in depth the needs and requirements of the trainees/participants/audience
- Build trusting and helpful relationship with the trainees
- Stay always in control and avoid conflict while delivering a training
- Learn how to match the aims and objectives of a training to the participants' needs
- Deal with difficult trainees and audience and manage difficult situations
- Learn the fundamental training delivery skills and how to use them to their advantage
- Learn how to handle question and gain the trust of their management

Structure

The course duration is 32 hours but it can be prolonged depending on the trainees' request.

The Teachers Training Manual is divided into theoretical classes, discussions, group work, practical exercises, and role-play exercises. The practical aspects of the course let the participants learn from each other by sharing their experiences and skills. Through an interactive programme, our experienced facilitator explores the elements that impact the effectiveness of a training session. Participants then deliver their own training session with feedback from our facilitator.

The manual is structured in the following topics (chapters):

1. Course Objectives
2. What are the benefits of the «Train the Trainers course»
3. Target Group
4. Training Approach
5. Certification of attendance awarded
6. Course syllabus and learning outcomes
7. Annex I : " Vocational framework Criteria"
8. Annex II : Glossary of terms

Involved partners

The following project partners involved to this Result R3.4:

P17 CPC

P16 UNED

Task Reference

This deliverable refers to Task 3.5 "Teachers training for identified skills EQF3 -8", generally to provide guidance on how to deliver training, teaching methods, use of specific training tools, as well as guidelines on the use of the use of online educational resources.

3.0 Benefits of “Train the trainers course”

3.1 Generally

Train the Trainer is an essential course which can be hugely beneficial not only for those delivering trainings but also to individuals who wish to enhance their presentation skills in front of an audience. In today’s demanding and challenging working environment, it is vital that professionals involved in trainings possess the right skills and attributes and be capable to understand, at an early stage, the needs and requirements of their trainees and participants. This course equips the participants with in depth knowledge of the various types of learning as well as with the necessary skills in order to deliver an interesting training that will fully engage their attendees. It is ideal for those responsible with the drafting of a training programme as well as for all those in charge of the implementation of the training policy and enhancement of staff competence levels of their organization or institution. *Train the Trainer* course will provide also valuable knowledge and tools to teachers involved in any type of formal and non-formal education, since part of the training is dedicated on how to handle questions and difficult situations as well as how to stay in total control and avoid conflict in front of an audience, such as a classroom. Finally, the course will benefit the participants’ organisations since the attendees will gain valuable knowledge on how to design and implement effective and efficient training programmes for their peers and colleagues and, hence, improve the staff competence levels

3.2 Benefits to participants

- Enhance the confidence, skills and presence in front of an audience,
- Improve knowledge in developing organizational training programmes,
- Understand the training needs of participants and peers/colleagues,
- Enhance skills and competences in structuring and delivering a training,
- Adopt the necessary skills and attributes to deliver an interesting training,
- Handle difficult situations and manage difficult trainees.

3.3 Benefits to participant’s organisation

- Improve human capital through enhancement of staff competency levels,
- Develop an effective training policy that matches the needs and requirements of the workforce,
- Train new and existing staff and build helpful relationships with trainees and among colleagues,
- Enhance the image by improving skills related to public speaking and exposure to any type of audience.

4.0 Target Group

The TTT course is ideal for:

- School principals & directors (primary & secondary)
- Teachers (primary & secondary)
- Academic staff (tertiary)
- Training managers & supervisors
- Trainers (formal & non formal education)
- Professionals exposed in any type of audience
- Professionals and staff who like to enhance their public speaking abilities and presence
- Professionals and staff responsible for implementing organisational training policy
- Professionals and staff responsible for improving staff competency levels
- HR managers and personnel

5.0 Training Approach

5.1 Training methodology

The course methodology will ensure the active involvement of the participants in all phases, that is, prior, during and after the delivery of the course. More specifically, upon confirmation that the course will take place, the participants will receive the program (time and dates), which will cover all important concepts to be presented during the delivery of the course. The participants will have the opportunity to exchange feedback with the organiser of the course, Cyprus Productivity Center, and the trainer as well as to request any clarification related to the content of the course.

The methodology of the training is based on a combination of three important elements:

During the delivery of the course, the participants will receive hard copy material, which will cover the content to be presented in all six (6) days of the seminar. The material will be presented in a form of Power Point (PPT) presentations, videos & animations. Moreover, the active involvement and hands on experience of the participants will be secured through various training tools, such as:

- Brainstorming
- Sharing experience and changing perspectives

- Small working groups
- Simulation and role play
- Learning by doing Exercises
- Group discussion

At the final day of the course, the participants will have the opportunity to reflect on the information received and the experience gained in the specific field of study. Moreover, the participants and their institutions will be encouraged to follow the web page of CPC and or "ECoVEM forum" to be informed about microelectronics, seminars and other related material.

5.2 Training process

Throughout the course a variety of training methods are used. The intention is, of course, to take every opportunity to familiarise participants with different methods. Thus, they will learn about a particular training method not only through a special 'demonstration', but also experience it as trainees in real training situations during the course.

The training process for the qualified trainers includes indicatively:

- 24 hours of classroom training (lecturers, group discussion,)
- 8 hours practical (workshop) training (case studies, exercises)
- 7 Hours trainee's self-study and practice through the e-learning platform)
- 1.0 hours per candidate for assessment

- ❖ Each module contains background documents and powerpoint presentations to introduce and explain each theme, as well as a detailed bibliography and list of internet resources to assist those interested in acquiring further information on the subject.
- ❖ The theoretical modules (1, 2, 3, 4) seek to provide participants with the basis needed for vulnerability and adaptation assessments thereby enabling them to choose the appropriate frameworks, methods and tools.
- ❖ Module 5, 6 contains a number of case studies which demonstrate how to apply the various concepts, methods and tools presented in the previous modules.

5.3 On line-educational resources process

In the rapidly evolving landscape of education, online - Educational Resources (OER) have emerged as a game-changing tool. These resources, with their versatile applications, have gained immense popularity in the realm of E-Learning.

Open Educational Resources, commonly referred to as OER, are educational materials that are made available online for free use, modification, and sharing. These resources span a wide range, encompassing textbooks, multimedia content, lesson plans, interactive simulations, and more.

OER come in various formats, ensuring a comprehensive learning experience for all. Some notable types include:

1. **Text-Based Resources** These encompass digital textbooks, lecture notes, research papers, and articles. Learners can access and annotate these materials, enhancing their comprehension and critical thinking.
 2. **Multimedia Resources** Audio and video materials provide an engaging dimension to learning. Podcasts, instructional videos, and virtual tours enrich the educational journey and cater to auditory and visual learners.
 3. **Interactive Resources** Simulations, quizzes, and interactive games promote active learning. Learners can experiment, test hypotheses, and grasp complex concepts through hands-on engagement.
- ❖ The course of "Teachers training" can be made available using OER, all presentations are in PPT form and can be shared with the trainees or trainer Instructors

6.0 'Trainees' performance assessment

The assessment of learner performance is perhaps the most important part of the training process. In assessing the performance of your trainees, you are making a judgement about whether or not they have met the objectives of the module, i.e. their level of competence. The assessment process, therefore, must be conducted as systematically and objectively as possible

Trainees will be continually assessed during the training programme to determine any problems and ensure that they are given every opportunity to develop the required skills. At the same time identification of problems encountered by the trainee will indicate weaknesses in the training programme and/or the ability of the trainer to implement the programme. All tests used to assess trainees' abilities must be relevant and reliable. That is, tests should measure exactly what it is required, e.g. how much the trainee knows about a problem and what he can do about it. The test should also be objective and different independent examiners should agree on what is a satisfactory answer.

7.0 Certification of attendance awarded

Certificate of attendance will be issued to each participant by the Cyprus Productivity Center.

8.0 Course Syllabus of learning outcomes

The material is organised in a series of modules that provide a structured guide to developing the key competencies in teaching and training. Apart from Module 1, which focuses on essential underpinning knowledge, each module will focus on one competence area and take you through the essential areas and questions that you will need to address in developing competence in that area. Do remember, however, that each competence is related to the other competencies and should not be seen in isolation.

The following are the eight (8) modules that comprise this manual on training fundamentals

A/A	MODULE	Theory	Exercises demonstrations	Self-Study
		<i>Hours</i>		
1	Principles of adult learning	3	--	1
2	Lesson planning and preparation of training	3	1	1
3	Training needs analysis	3	1	1
4	Development of training course	4	2	--
5	Practical instructional training presentation skills	3	2	--
6	Evaluation and assessment of learner performance	2	2	2
7	Renewable energy technology and applications	3	--	1
8	Applications of Microelectronics in industry	3	--	1
	Total Hours	24	8	7

8.1 Analysis of Module Course

Module 1: Principles of Adult Learning

1. Introduction

Teaching and training is only effective if it promotes learning. As instructors we are expected to be not only highly competent in our subject areas but also have sound knowledge concerning how students learn. This reflects a shift away from the traditional role of the teacher as primarily a provider of subject knowledge to a facilitator of learning – whereby we manage student learning, using a variety of instructional methods, information sources and media

In this module you will learn some of the key principles of learning and the implications of these principles for teaching. You will then be able to ensure that your lesson planning and delivery provide more opportunities for motivating students and facilitating their learning.

2.0 Module Objectives

On completion of this module trainee should be able to:

- Identify the key components of effective learning
- Analyse factors that promote and inhibit effective learning
- Identify different adult learning styles
- Identify the difference between goals and objectives
- Develop a teaching plan selecting appropriate content, teaching methodologies and instructional media
- Understand the importance and principles of test and evaluation in teaching
- Cite the requisites of a good test
- Develops skills in writing/constructing a good test item
- Identify the characteristics of an effective teacher
- Define and understand learning from different theories
- Understand and apply the Maslow's hierarchy of needs in teaching
- Discuss the three domains of learning

- Compare and contrast the education process to the nursing process
- Give an overview of learning theories and learning styles that support adult education
- Understand the principles of adult learning
- Identify the common characteristics of adult learners
- Determine what factors contribute to effective adult learning
- Know the use of motivation in teaching adult learners

Module 2: Lesson planning and preparation of training

1. Introduction

In this module, candidates will explore adult learning theory and best practices. By the end of the course, candidates will understand the unique needs of adult learners. Adults need to see that what they're learning is relevant. They also want it to meet their needs for independence and personal connection.

This module will help adult educators to design positive learning environments. It will explore strategies and resources to engage and empower learners. Candidates will apply theory and policy guidelines to plan, deliver, and assess learning. Reflection and self-directed learning will enhance their professional knowledge and skills.

2.0 Module Objectives

On completion of this module you should be able to:

- Use adult learning theory to help understand adult learners and improve your teaching practice.
- Apply principles of universal design, differentiated instruction, and the tiered approach to design lessons that accommodate the strengths, needs, and interests of all learners.

- Recognize factors that affect adult learning relationships and student engagement to build positive learning environments.
- Explore instructional strategies, assessment tools, and resources to meet the needs of the adult learner.
- Identify effective strategies for promoting communication and collaboration that support students' learning, resiliency, and well-being
- Create a digital teaching and learning Portfolio to assess and document your professional growth.

Module 3: Training needs analysis

1. Introduction

Training Needs Analysis is a structured approach to identifying the learning and development needs of individuals against an agreed framework of the skills and competencies required for them to fulfil their role effectively.

When combined with expert knowledge of training and development practices it is a powerful technique from which to identify and develop training interventions which are most appropriate to individuals, teams and sometimes organisations as a whole.

2.0 Module Objectives

On completion of this module you should be able to:

- Understanding of diverse methods used in conducting the Training Needs Analysis process
- Realise the roles, stages and types of needs analysis and gaps
- Conduct gap and root cause analysis and assessments
- Compare needs analysis methods to suit various contexts
- Understand the basics around structuring a learning program
- Implement effective and useful learning outcomes

- Identify the stages of evaluation
- analyse and report on evaluation analytics
- Understand how learning and development needs arise and why it is important to be aware of them;
- Understand the range of tools and techniques which can be utilised to gather and analyse information in relation to training needs analysis;
- Be able to utilise a range of tools and techniques to identify, analyse, prioritise and specify learning and development needs;
- Be able to identify appropriate training and development programmes or other interventions designed to address the needs identified.

3.0 Module Content

The content covered in the Training Needs Analysis module will be:

- What learning needs are (and are not) and why they arise;
- The importance and benefits of identifying learning needs;
- How to involve learners and other stakeholders in the process;
- The information required for identifying learning needs;
- Methods for collecting and analysing information;
- Factors that affect the prioritisation of learning needs;
- How to identify learning & development solutions which address the needs identified.

Module 4: Development of a training Course

1.0 Introduction

Training or learning objectives are the intended measurable outcome that your learners will achieve once they've finished a course. They should detail the information that will be acquired and what learners will be able to accomplish through learning this information. Importantly, training objectives should be concise, focused statements that break down what each course will accomplish and how they will help reach the business's overall end goal of training.

There are a few methods that businesses can use to develop training objectives, but the most famous and one of our favorites is Bloom's taxonomy. Bloom's taxonomy simply enables you to create and set different objectives that are measurable for your learners. The taxonomy consists of 6 objectives that are knowledge-based. Each of these is also paired with action verbs that help you describe the activity that should be taking place

2.0 Module Objectives

On completion of this module you should be able to:

- Determine the desired outcomes.
- Align procedures to lead to outcomes.
- Identify challenges to learning.
- Connect objectives to business goals.
- Ensure objectives are realistic and attainable.
- Provide clarity about the purpose of the course.
- Guide the development of appropriate content, methods, and materials by the curriculum developer in order to facilitate learning and meet training goals.
- Establish accountability between the learner and the instructor. Help lecturers articulate exactly what they want students to do by the end of the training lesson, module or course
- Choose an **action verb** that corresponds to the **specific action to demonstrate knowledge skills and competences.**

Module 5: Practical instructional training skills

1.0 Introduction

In Module 4, we saw the importance of good planning and preparation of a training course. However, the development plan itself will not teach the lesson effectively. It is the teaching methods and communication skills of the instructor that translate the plan into an effective learning experience for the trainees. The instructor can make the subject interesting and alive for the learner. In this module we will outline the range of

instructional methods and learning resources that can be employed under the “umbrella” term of Training.

2.0 Module Objectives

On completion of this module you should be able to:

- Compare and contrast a range of instructional methods
- Select appropriate instructional methods for the specific content you teach
- Use a range of instructional methods in your teaching role.
- Differentiate between training, and development, and recognize the roles these activities play in Human Resource Management
- Explain the importance of accommodating different learning and teaching styles in training programs
- Be able to explain the relationship between age and the learning process in adult trainees
- Produce a training plan with clear goals and specific learning outcomes
- Utilize a variety of training methodologies; Job Instructional Training, Case Studies, Experiential Exercises

Module 6: Evaluation and assessment of learner performance

1.0 Introduction

The assessment of learner performance is perhaps the most important part of the training process. In assessing the performance of your trainees, you are making a judgement about whether or not they have met the objectives of the module, i.e. their level of competence. The assessment process, therefore, must be conducted as systematically and objectively as possible.

One methodology is to use criterion-referenced tests. Criterion-referenced tests are tests where there is an unarguable, objective measure of the correctness of the answer that holds good independent of the level of the class of trainees or of the examiner’s strictness. There is a single criterion for passing or failing each test. The level of success in training for a job must be independent of the average quality of the trainee.

Having completed the previous modules, you will already be very aware of the importance of evaluating your teaching as a means of continuous improvement.

In this module we will consider in more detail the importance of evaluating teaching and learning and the various ways this can be carried out.

➤ **What is evaluation?**

Evaluation is essentially concerned with judging the worth or value of an activity or event. This is usually with a view to identifying ways in which such activities or events can be improved in future. However, evaluations can equally lead to decisions to terminate existing activities. An evaluation should seek to:

- ❖ identify and illuminate what is actually occurring in the area or activity that is the subject of evaluation, and
- ❖ Produce sufficient information to enable the evaluator, using agreed criteria, to make valid and useful judgements about what is being evaluated.
- ❖ When evaluating the performance of your class, you are measuring them against the standards for satisfactory performance provided in your course material, especially the course objectives.

2.0 Module Objectives

On completion of this module, you should be competent to:

- Identify the criteria for good assessment
- Plan a scheme of assessment
- Identify appropriate assessment methods for specific learning outcomes
- Design a range of assessment items
- Produce a marking scheme for open-response items
- Identify common pitfalls in conducting assessment
- Identify different types of evaluation and evaluation data
- Conduct an evaluation of a module
- Prepare an end of course report
- Identify and plan self-development needs as an instructor

Module 7: Renewable energy technology and applications (optional)

1. Introduction

This Module of “Renewable and Sustainable Energy Systems” provides a deep level of understanding of the conversion principles and technology behind various renewable energy sources. It also examines the issues involved in the integration of various renewable energy sources and their economics for heat, power, and transportation needs. Based on the technical and sustainability challenges, the future outlook for each of the sources and systems is discussed.

2.0 Module Objectives

On completion of this module the Trainee should be able to:

- Explain the basic concepts of mechanics, energy, heat transfer, thermodynamics and electricity related to renewable energy technologies.
- Identify the key components to renewable energy technologies: solar, thermal energy, solar PV, geothermal energy, bioenergy, wind energy, and hydropower renewable energy storage and transmission
- Understand the principles of operation of the broad spectrum of renewable energy technologies,
- Conduct preliminary resource assessments for a variety of renewable energy technologies
- Analyze energy technologies from a systems perspective
- articulate the technical challenges for each of the renewable sources; and
- Discuss economic, technical, and sustainability issues involved in the integration of renewable energy systems.
- Distinguish the effects that current energy systems have over the environment

Module 8: Applications of Microelectronics in Industry (optional)

1.0 Introduction

Microelectronics is a field in electronics that utilizes tiny, or micro, components to **manufacture electronics**. As demand for small and less expensive devices grows, the field continues to expand. The main areas of focus generally are research, reliability and manufacture. In addition to consumer products, microelectronic devices have also permeated many critical areas in **medical, aerospace, and military applications**. In such critical applications, reliable performance of electronic packages is extremely important.

The goal of this Module is to teach the fundamentals of Microelectronic Technology, their applications to everyday life and in Industry generally. Emphasis will be placed on multidisciplinary understanding using concepts from Electrical Engineering, materials science/engineering, chemistry, physics, and mechanical engineering.

2.0 Module Objectives

Upon completion of this module the Trainee should be able to:

- Provide with enough basic information so he/she can understand the basic concepts of Microelectronics
- Realize the challenges of Microelectronics in everyday life
- Establish the fundamental background about microelectronic devices and semiconductor physics.
- Interpret the physical structures of diodes, transistors, semiconductor devices and their operating principles.
- Describe the main parts of Microelectronics and their use.

ANNEX I

This Annex describes the Standard of the Structure of the Vocational Field, 'Train the Trainers' based on EQF-5, as required by Cyprus Human Resources Directorate (HRDA), for someone to get certified.

The standard describes in detail, the learning outcomes, knowledge, skills and competences required for each module.

Module No..	Module title	Learning Outcomes	LO Description
M1	Training needs analysis	M1.1	Identification of broader training needs in sectors of economic activity
		M1.2	Assessment of collective training needs of organisations
		M1.3	Assessment and analysis of personal training needs the trainees
M2	Programme and/or training module design	M2.1	Design and organisation of the training content
		M2.2	Selection and/or development of training methods, techniques, aids and materials
M3	Programme and/or training module implementation	M 3.1	Preparation before the beginning of the training
		M 3.2	Implementation of the training
M4	Programme and/or training module evaluation	M 4.1	Design and conduct of the evaluation
		M4.2	Processing and utilisation of the evaluation results

ANALYSIS OF LEARNING OUTCOMES

Module Number: M1	Module Title: Training needs analysis
Description	This specific Module concerns the collection and/or processing of all the data and information needed for the identification of broader training needs in sectors of economic activity, the assessment of collective training needs of organisations and the assessment and analysis of the personal training needs of the trainees, in order to form a training programme that will meet these needs.
M 1.1	Identification of broader training needs in sectors of economic activity
M1.2	Assessment of collective training needs of organisations
M1.3	Assessment and analysis of personal training needs the trainees

Module Number: M1	Module Title: Training needs analysis
LO code: M1.1	Identification of broader training needs in sectors of economic activity
<p style="text-align: center;">Analysis of Learning Outcomes</p> <p>NK: Necessary Knowledge PC: Performance Criteria FA: Field of application</p>	<p>NECESSARY KNOWLEDGE (NK) List of necessary knowledge for the implementation of this project: NK1. As a trainer, to which sources can you refer to for the collection of data concerning various sectors of economic activity? NK2. What do the possible problems of a sector of economic activity refer to? NK3. To which thematic areas is it likely to detect training needs in various sectors of economic activity?</p>
	<p>PC1. To identify sources of information for the areas. PC2. To collect and utilise information and data related to the areas. PC3. To detect structural and other problems related to the areas. PC4. To identify thematic areas of training needs.</p>
	<p>FIELD OF APPLICATION (FA) SI1. Sources of Information</p> <ul style="list-style-type: none"> ▪ Statistical Authority ▪ Professional Associations ▪ Human Resource Development Authority ▪ European Union ▪ Social Partners ▪ Other competent organisations/services <p>SI2. Problems related to the areas</p> <ul style="list-style-type: none"> ▪ Competitiveness ▪ Quality ▪ Productivity ▪ Technology Level ▪ Production Cost ▪ Seasonal/Permanent professions ▪ Exports ▪ Modernisation <p>SI3. Thematic areas of training needs</p> <ul style="list-style-type: none"> ▪ Direction/Supervision ▪ Development and production of products ▪ Marketing/Sales ▪ Markets ▪ Finance ▪ Quality management ▪ Human Resources ▪ Public Relations ▪ Technology ▪ Health, Safety and Environment ▪ Languages

Module Number: M1	Module Title: Training needs analysis
LO code: M1.2	Assessment of collective training needs of organisations
<p>Analysis of Learning Outcomes</p> <p>NK: Necessary Knowledge PC: Performance Criteria FA: Field of application</p>	<p>NECESSARY KNOWLEDGE (NK)</p> <p>NK1. Which are the main data collection techniques?</p> <p>NK2. Based on which factors can one determine the characteristics of an organisation?</p> <p>NK3. Which problems of an organisation are likely to be related to training needs?</p> <p>NK4. Based on which criteria can the training needs be grouped?</p>
	<p>PERFORMANCE CRITERIA (PC)</p> <p>In order to prove your skills in this project you should:</p> <p>PC1. Apply the appropriate, where applicable, techniques of data collection for the identification of problems.</p> <p>PC2. Collect and assess information referring to the characteristics of the organisations.</p> <p>PC3. Detect problems related to the training needs.</p> <p>PC4. Set out the collective training needs of the organisations.</p> <p>PC5. Proceed to the grouping of training needs.</p>
	<p>FIELD OF APPLICATION (FA)</p> <p>FA1. Data collection techniques</p> <ul style="list-style-type: none"> ▪ Distribution of questionnaires ▪ Personal interview ▪ Group interview ▪ Observation <p>FA2. Characteristics of the organisations</p> <ul style="list-style-type: none"> ▪ Competitiveness ▪ Cooperativeness ▪ Productivity ▪ Management characteristics ▪ Human resources utilisation level ▪ Technology utilisation level ▪ Values ▪ Legal entity ▪ District/Area in which it is located ▪ Turnover ▪ Employment size and demographic structure ▪ Educational culture ▪ Educational centre ▪ Trainers ▪ Capital intensity ▪ Work intensity ▪ Corporate social responsibility ▪ Connection with the local society ▪ Participation in educational and cultural activities ▪ Employed persons with disabilities (EPD)

Module Number: M1	Module Title: Training needs analysis
LO code: M1.3	Assessment and analysis of personal training needs of the trainees
<p style="text-align: center;">Analysis of Learning Outcomes</p> <p>NK: Necessary Knowledge PC: Performance Criteria FA: Field of application</p>	<p>NECESSARY KNOWLEDGE (NK)</p> <p>List of necessary knowledge for the implementation of this project:</p> <p>NK1. To which data do the demographic/social characteristics of the trainees refer to?</p> <p>NK2. To which data do the educational characteristics of the trainees refer to?</p> <p>NK3. To which data do the professional characteristics of the trainees refer to?</p> <p>NK4. To which data do the special characteristics of the trainees refer to?</p> <p>NK5. Which are the possible learning motivations of the trainees?</p> <p>NK6. Which are the data collection techniques?</p> <p>NK7. Which are the different types of results analysis?</p>
	<p>PERFORMANCE CRITERIA (PC)</p> <p>In order to prove your skills in this project you should:</p> <p>PC1. Determine the demographic and social characteristics of trainees</p> <p>PC2. Determine the educational characteristics of the trainees</p> <p>PC3. Determine the professional characteristics of the trainees</p> <p>PC4. Determine the special characteristics of the trainees</p> <p>PC5. Determine the learning motivations of the trainees</p> <p>PC6. Select and apply the appropriate, where applicable, data collection techniques.</p> <p>PC7. Proceed to the results analysis.</p> <p>PC8. Reach specific conclusions</p>
	<p>FIELD OF APPLICATION (FA)</p> <p>FA1. Demographic and Social characteristics</p> <ul style="list-style-type: none"> • Gender • Age • Urban/Rural area

	<ul style="list-style-type: none"> • Economic background <p>FA2. Educational characteristics</p> <ul style="list-style-type: none"> • Level of education • Training • Specialisation <p>FA3. Professional characteristics</p> <ul style="list-style-type: none"> • Profession • Position • Specialisation • Experience <p>FA4. Special characteristics</p> <ul style="list-style-type: none"> • Long-term unemployment • Persons with disabilities (PWD) • Repatriation <p>FA5. Learning motivations</p> <ul style="list-style-type: none"> • Personal interest • Professional development • Salary improvement • Enrichment of knowledge/skills • Retraining <p>FA6. Data collection techniques</p> <ul style="list-style-type: none"> • Distribution of questionnaires • Personal interview • Group interview • Observation <p>FA7. Analysis results</p> <ul style="list-style-type: none"> • Quantitative analysis • Qualitative analysis • Statistic analysis
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Module Number M2	Module Title: Programme and/or training module design
Description	This specific module area includes all the necessary actions and procedures for the design and organisation of the training content, as well as for the selection and/or development of training methods, techniques, aids and materials.
M2.1	Design and organisation of the training content
M2.2	Selection and/or development of training methods, techniques, aids and materials

Module Number: M2	Module Title: Programme and/or training module design
LO code: M 2.1	Design and organisation of the training content
<p style="text-align: center;">Analysis of Learning Outcomes</p> <p>NK: Necessary Knowledge PC: Performance Criteria FA: Field of application</p>	<p>NECESSARY KNOWLEDGE List of necessary knowledge for accomplishing this project NK1. What are the characteristics of a properly worded training purpose? NK2. What do the training objectives refer to? NK3. To what elements does the modules' structure refer? NK4. What are the main elements of the inaugural meeting? NK5. What are the main elements of the final meeting?</p> <hr/> <p>PERFORMANCE CRITERIA (PC) In order to prove your skills in this project you should: PC1. Set out the training purposes in a clear, brief and concise way. Determine the training objectives. PC2. Define the key concepts of the programme or the training module. Determine the structure of the modules. PC3. Design the inaugural meeting PC4. Design the final meeting</p> <hr/> <p>FIELD OF APPLICATION (FA) FA1. Training objectives <ul style="list-style-type: none"> ▪ Enrichment of knowledge ▪ Upgrading of skills ▪ Improvement of attitude FA2. Structure of modules <ul style="list-style-type: none"> ▪ Extent ▪ Content ▪ Establishment of the practical and theoretical parts ▪ Sequence and cohesion ▪ Level of interactivity of the training modules ▪ Detailed timetable ▪ Level of interactivity between the educational material and the trainee FA3. Inaugural meeting <ul style="list-style-type: none"> ▪ Icebreaker ▪ Analysis of the purpose and the objectives ▪ Contract of commitment FA4. Final meeting <ul style="list-style-type: none"> ▪ Summary ▪ Results ▪ Evaluation </p>

<p>Module Number: M2</p>	<p>Module Title: Programme and/or training module design</p>
<p>LO code: M 2.2</p>	<p>Choice and/or Development of the Training Methods, Techniques, Aids and Materials</p>
<p>Analysis of Learning Outcomes</p> <p>NK: Necessary Knowledge PC: Performance Criteria FA: Field of application</p>	<p>NECESSARY KNOWLEDGE (NK) List of necessary knowledge for accomplishing this project: NK1. What are the training methods? NK2. What are the training techniques? NK3. What are the training aids? NK4. What are the training materials? NK5. What are the criteria for choosing the right training methods, techniques, aids and</p>
	<p>PERFORMANCE CRITERIA (PC) In order to prove your abilities in this project you must: PC1. Choose and/or develop the training methods to be used. PC2. Choose and/or develop the training techniques. PC3. Choose and/or develop the training aids to be used.</p>
	<p>FIELD OF APPLICATION (FA) FA1. Training Methods</p> <ul style="list-style-type: none"> • Face-to-face Learning • Distance Learning • Self-learning • Synchronous E-learning • Asynchronous E-learning • Blended Learning • M-learning <p>FA2. Training Techniques</p> <ul style="list-style-type: none"> • Lecture/Presentation • Discussion • Work in Groups • Experiential Workshop • Literature Review • Role-playing • Snowball • Simulation • Case Study • Brainstorming • Practical exercise • Projection • Demonstration • Qs and As (Questions and Answers)

	<p>FA3. Training Aids</p> <ul style="list-style-type: none"> ▪ Blackboard/Whiteboard ▪ Flip Chart ▪ Interactive Whiteboard ▪ Computer ▪ Software ▪ Internet ▪ Various types of projectors ▪ Sound Systems ▪ Training Manuals <p>FA4. Training Materials</p> <ul style="list-style-type: none"> ▪ Compact Discs ▪ Transparencies/Slides ▪ Objects ▪ Chalks ▪ Markers
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Module Number: M3	Module Title: Programme and/or training module design
Description	This particular module area includes the preparation and implementation of the training.
M 3.1	Preparation of the training
M 3.2	Implementation of the training

Module Number: M 3	Module Title: Programme and/or training module design
LO code: M 3.1	Preparation of the training
<p>Analysis of Learning Outcomes</p> <p>NK: Necessary Knowledge PC: Performance Criteria FA: Field of application</p>	<p>NECESSARY KNOWLEDGE (NK) List of necessary knowledge for accomplishing this project: NK1. What do the basic placement principles of training aids refer to? NK2. What are the ways to arrange a training place? NK3. What is the minimum space area per person in the training room? NK4. Which factors</p>
	<p>PERFORMANCE CRITERIA (PC) In order to prove your abilities in this project you must: PC1. Apply the placement principles of training aids. PC2. Proceed to effective arrangement of the training place. PC3. Secure the minimum space area per person in the training room. PC4. Check whether the training aids are working. PC5. Secure the right training conditions where applicable.</p>
	<p>FIELD OF APPLICATION (FA) FA1. Placement Principles of Training Aids</p> <ul style="list-style-type: none"> • Avoiding over-coverage • Visibility • Trainer's facilities to the users <p>FA2. Arrangement of the Training Place</p> <ul style="list-style-type: none"> • Layout of school classroom • Theatrical layout • Diagonal layout of school classroom • "П" parallelogram shape layout • Open circle layout • Triangle layout • Meeting or conference layout • Teamwork layout • Combination of layouts <p>FA3. Minimum Space Area</p> <ul style="list-style-type: none"> • 1.5 square meter per person • 3 square meters per person with disabilities (PWD) <p>FA4. Training Conditions</p> <ul style="list-style-type: none"> • Audio • Lighting • Ventilation • Temperature • Avoidance of noise

Module Number: M 3	Module Title: Programme and/or training module design
LO code: M 3.2	Training implementation
<p>Analysis of Learning Outcomes</p> <p>NK: Necessary Knowledge PC: Performance Criteria FA: Field of application</p>	<p>NECESSARY KNOWLEDGE (NK) List of necessary knowledge for accomplishing this project: NK1. To what elements does management and encouragement of team dynamics refer? NK2. Which factors carve out the learning environment? NK3. What does effective time management refer to? NK4. Which elements carve out effective oral communication? NK5. How can body language be used efficiently?</p>
	<p>PERFORMANCE CRITERIA (PC) In order to prove your abilities in this project you must: PC1. Apply the team management and encouragement principles. PC2. Create a learning environment. PC3. Manage time effectively. PC4. Use oral communication effectively. PC5. Use body language efficiently. PC6. Adjust programme and/or training module implementation according to the particular features of the trainees.</p>
	<p>FIELD OF APPLICATION (FA) FA1. Team Management and Encouragement Principles</p> <ul style="list-style-type: none"> • Equal treatment of trainees • Handling different types of trainees • Bridging differences • Facing friction • Interaction • Motivation <p>FA2. Learning Environment</p> <ul style="list-style-type: none"> • Trust • Creativity • Expression of opinions • Participation • Team spirit <p>FA3. Oral Communication</p> <ul style="list-style-type: none"> • Voice volume • Flow • Substantiation • Clarity • Focus • Explanation • Good enunciation • Independence from notes

	<p>FA4. Body Language</p> <ul style="list-style-type: none"> ▪ Periodic variation of voice volume ▪ Appearance ▪ Natural appearance ▪ Eye contact ▪ Expressions ▪ Gestures ▪ Body movement
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Module Number: M 4	Module Title: Programme and/or training module evaluation
Description	This particular module includes the design and evaluation as well as processing and utilisation of the programme's and/or training module's evaluation results.
M 4.1	Design and evaluation
M 4.2	Processing and utilisation of evaluation results

Module Number: M 4	Module Title: Programme and/or training module evaluation
LO code: M 4.1	Design and evaluation
<p>Analysis of Learning Outcomes</p> <p>NK: Necessary Knowledge PC: Performance Criteria FA: Field of application</p>	<p>NECESSARY KNOWLEDGE (NK) List of necessary knowledge for accomplishing this project: NK1. What are the evaluation types? NK2. What are the potential evaluation hubs? NK3. What are the evaluation tools? NK4. What are the evaluation techniques? NK5. What are the scales of measurement? NK6. What are the types of questions?</p> <hr/> <p>PERFORMANCE CRITERIA (PC) In order to prove your abilities in this project you must: PC1. Choose and apply the evaluation type where applicable. PC2. Choose the evaluation hubs. PC3. Choose and use the right evaluation tools. PC4. Choose and apply the right evaluation techniques. PC5. Choose the types of questions. PC6. Choose the scales of measurement.</p> <hr/> <p>FIELD OF APPLICATION (FA)</p> <p>FA1. Evaluation Types</p> <ul style="list-style-type: none"> • Final • Formative • Internal • External • Participatory • Non-participatory <p>FA2. Evaluation Hubs</p> <ul style="list-style-type: none"> • Trainer • Training Content • Trainees • Training Conditions • Training Organisation <p>FA3. Evaluation Tools</p> <ul style="list-style-type: none"> • Questionnaire • Diagnostic Samples <p>FA4. Evaluation Techniques</p> <ul style="list-style-type: none"> • Distribution of Questionnaires • Interview • Oral Examination • Written Examination • Delphi Method

	<ul style="list-style-type: none">▪ Observation of Behaviour▪ Video Recording of Presentations▪ Evaluation of Written Projects of the Trainees <p>FA5. Types of Questions</p> <ul style="list-style-type: none">▪ Close/Open▪ Multiple Choice▪ True/False▪ Matching <p>FA6. Scales of Measurement</p> <ul style="list-style-type: none">▪ Nominal/ Categorical▪ Ordinal▪ Ratio▪ Interval
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Module Number: M 4	Module Title: Programme and/or training module evaluation
LO code: M 4.2	Processing and utilisation of evaluation results
<p>Analysis of Learning Outcomes</p> <p>NK: Necessary Knowledge PC: Performance Criteria FA: Field of application</p>	<p>NECESSARY KNOWLEDGE (NK)</p> <p>List of necessary knowledge for accomplishing this project:</p> <p>NK1. Who are the potential recipients of evaluation results?</p> <p>NK2. What are the methods of ways of publishing the evaluation results?</p> <p>NK3. What is the purpose of evaluation?</p>
	<p>PERFORMANCE CRITERIA (PC)</p> <p>In order to prove your abilities in this project you must:</p> <p>PC1. Analyse and process the evaluation findings.</p> <p>PC2. Choose the recipients of the evaluation results.</p> <p>PC3. Choose ways of publishing the evaluation results.</p> <p>PC4. Publish/present the evaluation results to the recipients.</p> <p>PC5. Detect/note the points that need to be improved.</p>
	<p>FIELD OF APPLICATION (FA)</p> <p>FA1. Recipients of the Evaluation Results</p> <ul style="list-style-type: none"> ▪ Funding bodies and programme-commissioning bodies ▪ Employers of trainees ▪ Trainees ▪ Trainer ▪ Public bodies <p>FA2. Ways of Publishing the Evaluation Results</p> <ul style="list-style-type: none"> ▪ Submission of written report ▪ Presentation ▪ Oral information

ANNEX II

- **Glossary of terms**

Assessments	<p>Assessments are ongoing process of identifying what and how individuals are learning, and providing a guide for the pace and nature of instruction.</p> <p>They are often thought of as allocating marks and something to be done at the end of a course, not in every session. Assessments provide valuable source of feedback to trainees, enabling them to monitor their own learning both in terms of competencies met as well as how to develop competence yet to be achieved.</p>
Brainstorm	<p>Brainstorming is a very good method for a situation where the aim is to expand people's thinking in an area and generate ideas. In brainstorming, any idea is welcomed and no justification is needed. This method is particularly appropriate at the beginning of a topic to identify existing knowledge and provide a framework for learning.</p>
Course	<p>A course is a planned learning experience for an identified group of trainees. This may involve anything from a three-year undergraduate degree in maritime management to a six-week induction for a new navigational device. Courses, in fact, can vary greatly in terms of scope, duration and mode of delivery.</p>
Evaluation	<p>Evaluation is essentially concerned with judging the worth or value of an activity or event. This is usually with a view to identifying ways in which such activities or events can be improved in future.</p>
Learning Objectives	<p>These are specific action statements, which specify what the trainee will be able to do, or say, or think, as a result of attending a course or a particular session.</p>
Lesson plan	<p>A written document that identifies how the instructor intends to incorporate the essential elements into the lesson he or she is about to teach. Once produced, the plan is a working document for teaching this particular lesson.</p>
Skills	<p>Skills are applying knowledge in an effective and efficient manner to get something done. One notices skills in an employee by their behaviors.</p>
Abilities	<p>Abilities result from applying the skills to the extent that the applications become natural or intuitive to do.</p>

Knowledge	Knowledge is gleaned by organizing information. Typically, information evolves to knowledge by the learner's gaining context, perspective and scope about the information.
Training	This term is often interpreted as the activity when an expert and learner work together to effectively transfer information from the expert to the learner (to enhance a learner's knowledge, attitudes or skills) so the learner can better perform a current task or job.
Task	A task is typically defined as a unit of work, that is, a set of activities needed to produce some result, e.g., vacuuming carpet, writing a memo, sorting the mail, etc. Complex positions in the organization may include a large number of tasks, which are sometimes referred to as functions.
continuous professional development (CPD)	A process encouraged by professional institutions where members of the profession are required to show proof of their continued learning and development as a condition of maintaining or upgrading their institute membership.

