

BEST PRACTICES IN CURRICULUM DESIGN IN VET

Workshop 2



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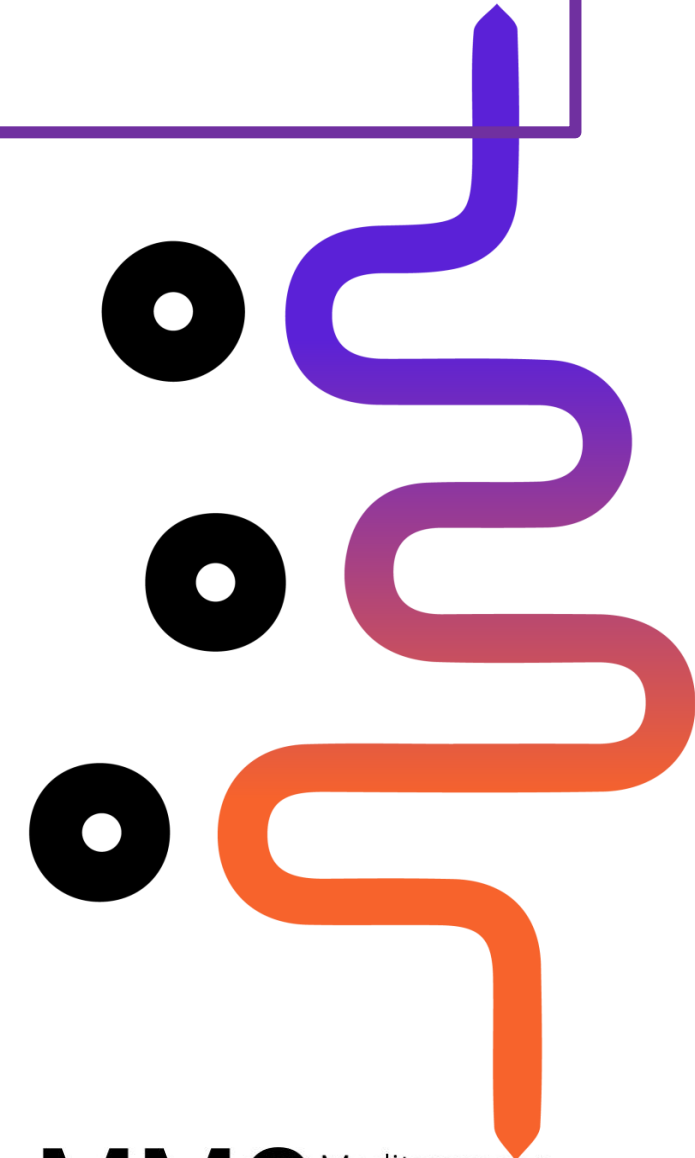
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MMC Mediterranean
Management Centre

Objectives of the workshop

In terms of knowledge:

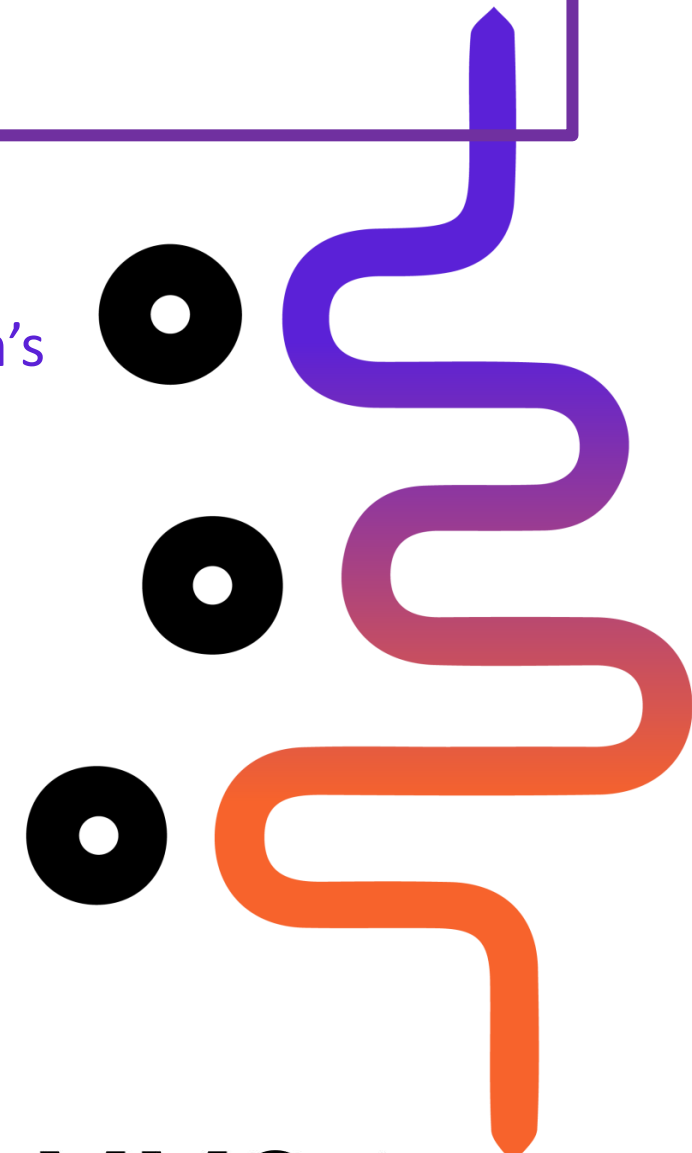
- To explain outcome-based curriculum design principles in VET.
- To describe the EQF structure and its role in qualification comparability.
- To identify the components and interrelation of learning outcomes.
- To summarize the use of Bloom's Taxonomy for measurable learning outcomes.
- To recognize key training methods and the role of work-based learning in VET.



Objectives of the workshop

In terms of skills:

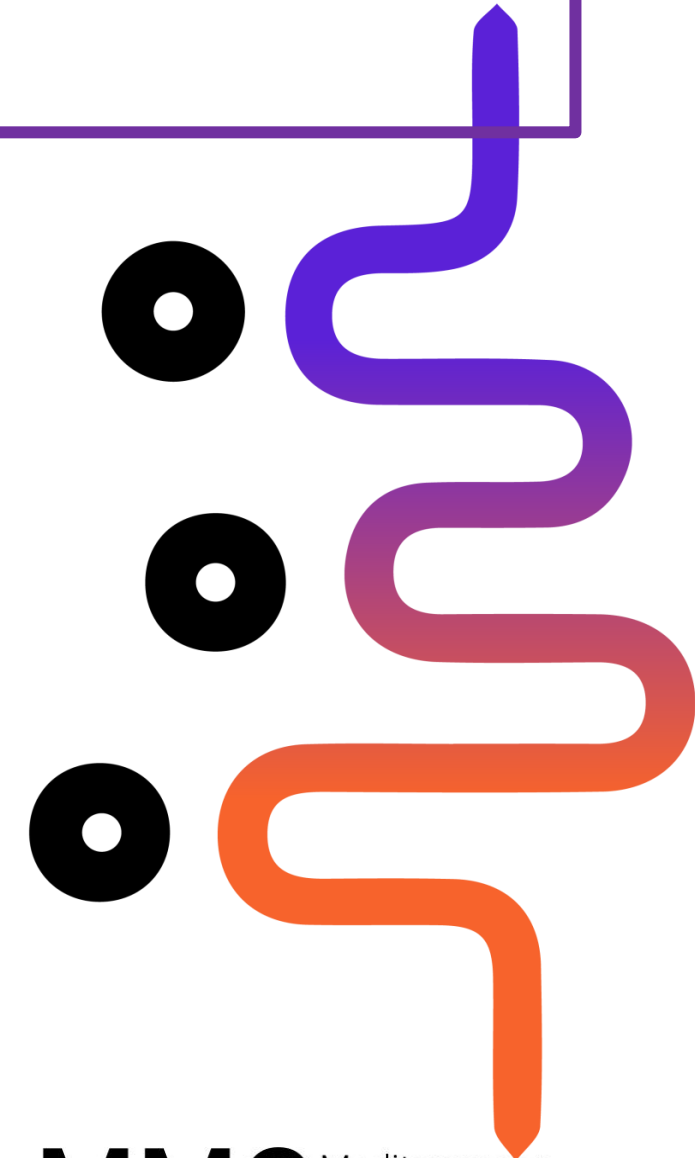
- To develop measurable learning outcomes aligned with Bloom's Taxonomy and EQF levels.
- To design training modules and route maps linked to defined learning outcomes.
- To select and apply appropriate training methods and techniques.
- To evaluate learning outcomes and training methods through reflection and feedback.



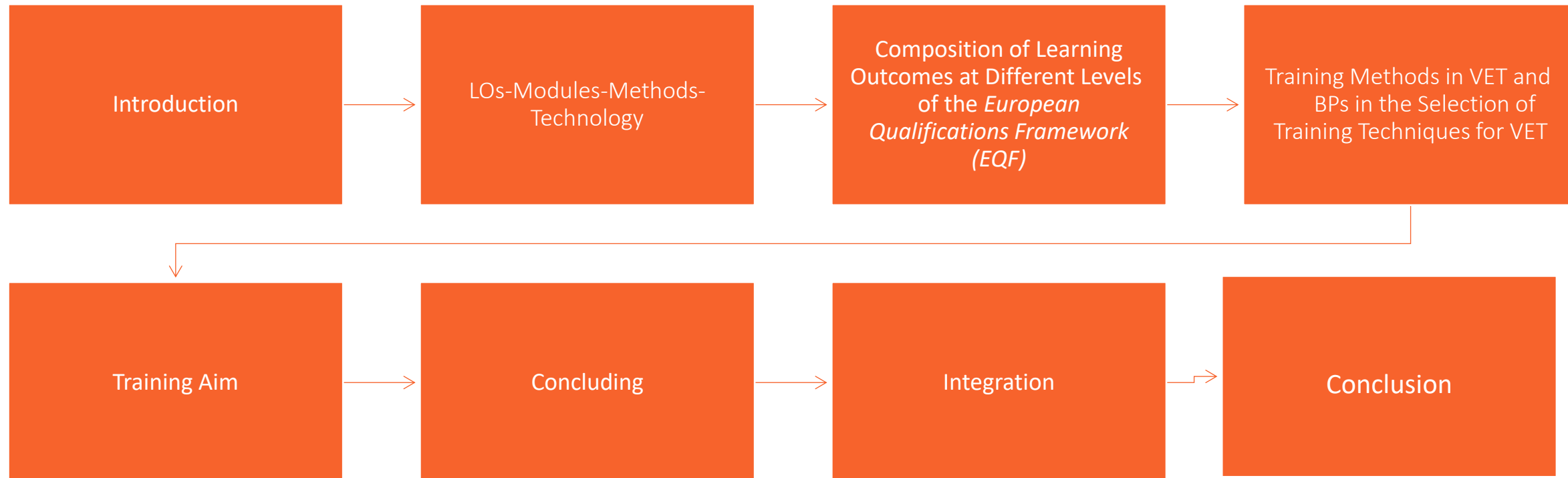
Objectives of the workshop

In term of attitudes:

- To value the role of learning outcomes as a foundation for high-quality, transparent, and inclusive curriculum design.
- To appreciate the importance of learner-centered, flexible, and competency-based approaches in VET.



Workshop routemap



Introduction

Unit 1

Key Elements and... Basic Principles

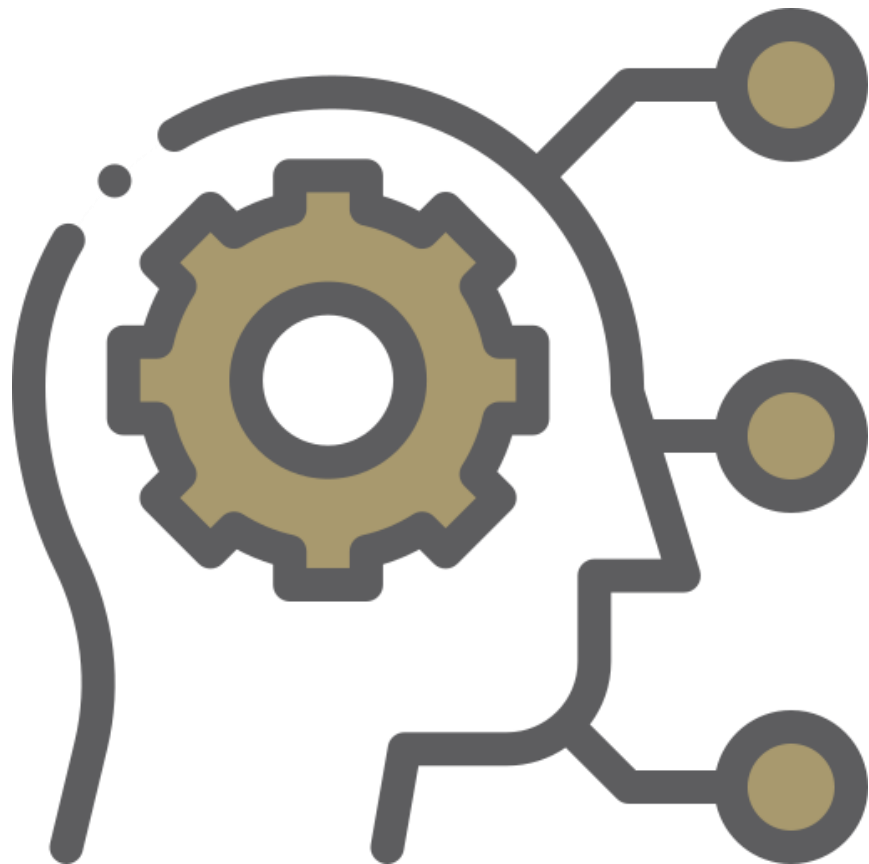
- Training Aim
- Learning Outcomes (Objectives)
- Training Modules
- Training Methods
- Training Techniques



LOs-Modules-Methods-Technology

Unit 2

BPs in Developing Learning Outcomes for VET

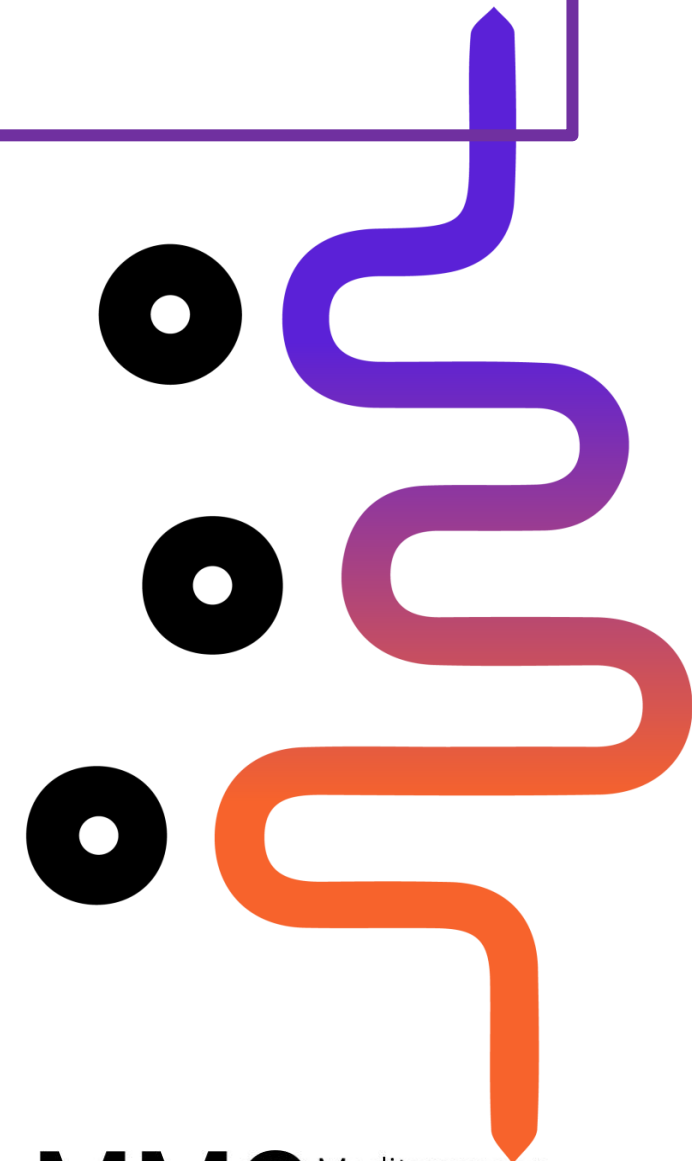


Learning Outcomes (LOs)

- The 2017 EQF Recommendation defines learning outcomes as ‘...statements of what an individual should know, understand and/or be able to do at the end of a learning process, which are defined in terms of knowledge, skills and responsibility and autonomy’.

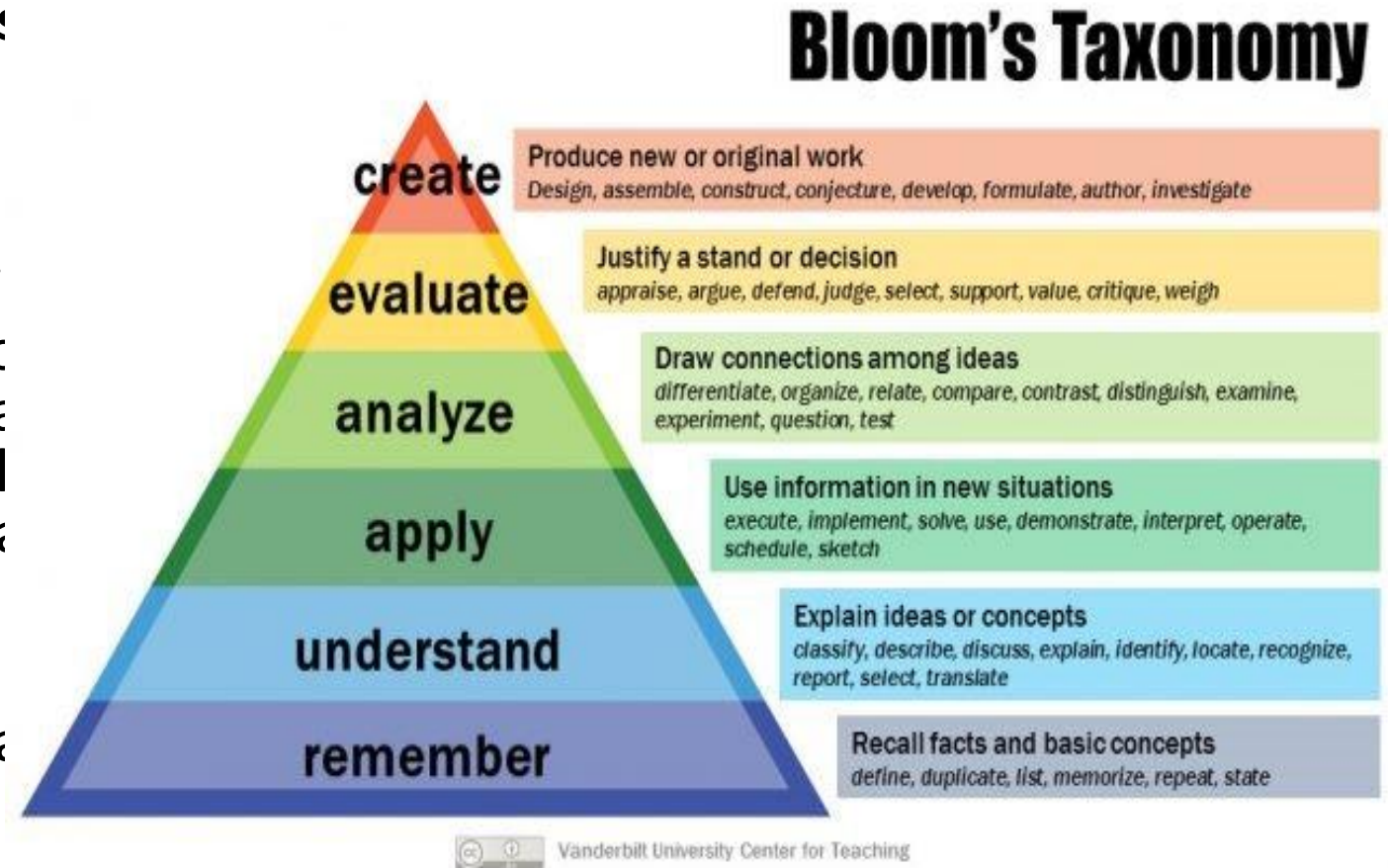
The learning outcomes perspective is used for a number of different purposes, the most important being:

- Qualification frameworks and their level descriptors
- Qualification standards
- Curriculum development
- Assessment and validation
- Quality assurance
- Teaching and training
- Micro-credentials



The Bloom's Taxonomy

- There are different **taxonomies** – sets of **hierarchical models** – to classify educational learning goals or objectives.
- The **Bloom's taxonomy**, proposed in 1956 by Benjamin Bloom, an educational psychologist at the University of Chicago, is a **set of three hierarchical models** used for classification of educational learning objectives into levels of complexity and specificity.
- The list of verbs of the taxonomy was revised in 1990s.



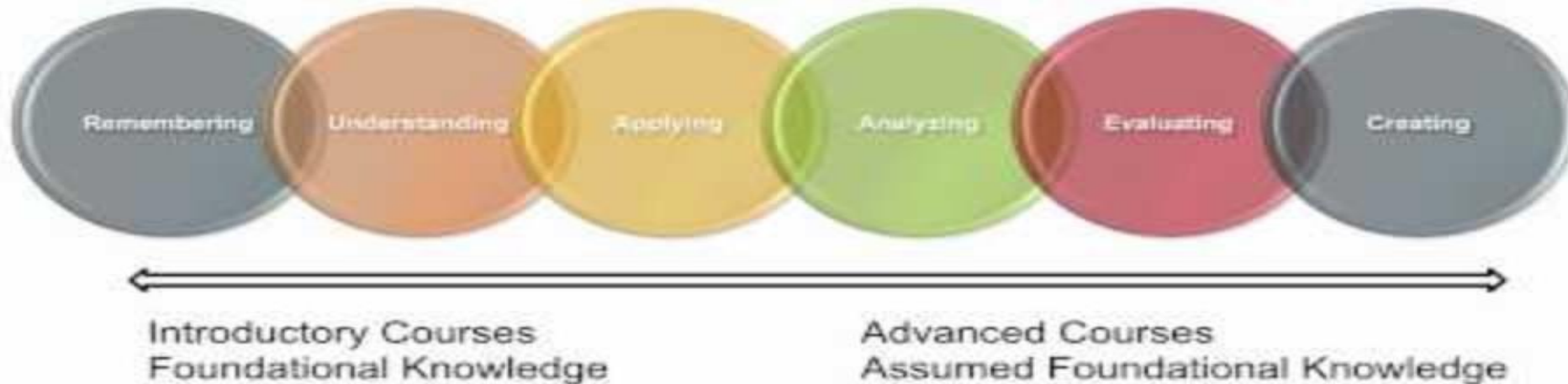
BLOOM'S TAXONOMY

CREATE _____
EVALUATE _____
ANALYZE _____
APPLY _____
UNDERSTAND _____
REMEMBER _____



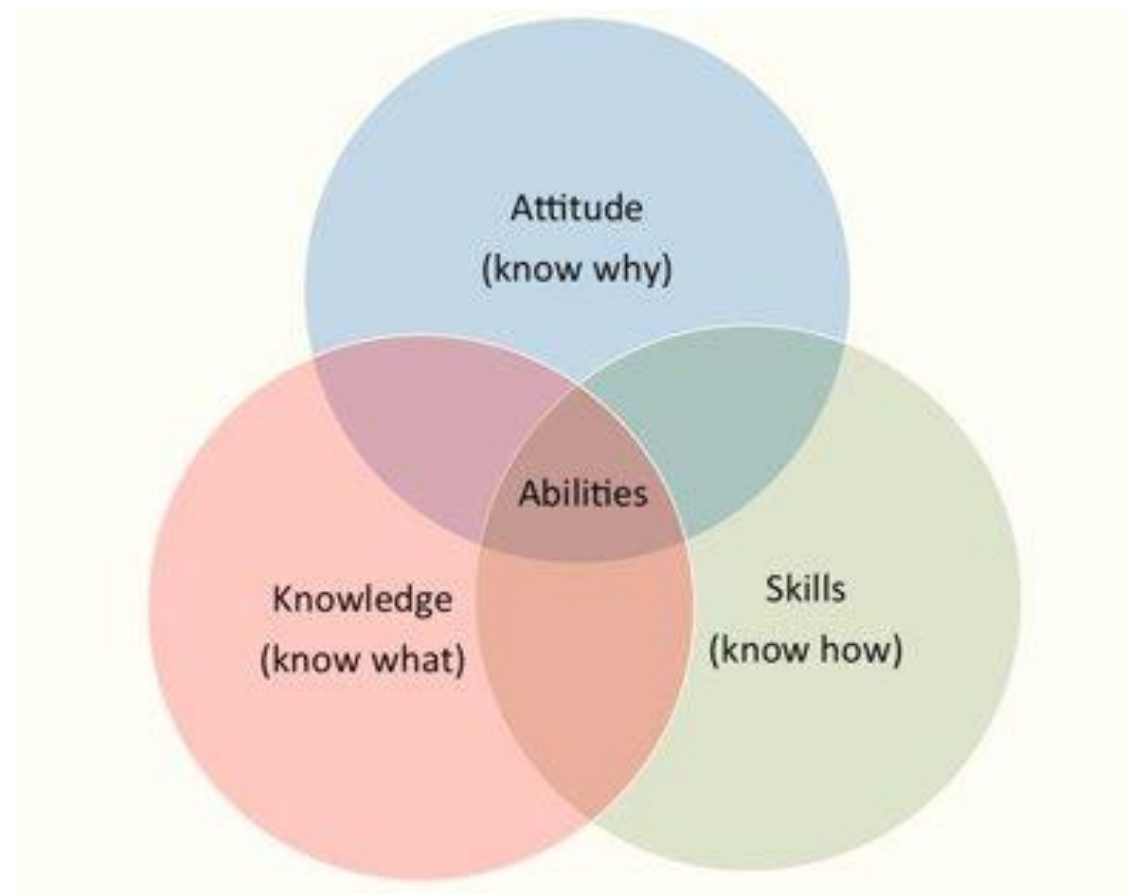
Composing LOs using the Bloom's Taxonomy

What Level of Learning Applies?



<https://ep.jhu.edu/blooms>

Composing LOs in Terms of...



Points to Consider

- ✓ Knowledge – Skills – Attitudes/Competences/Abilities (Responsibility and Autonomy)
- ✓ 3rd Level in RAPPORT?
- ✓ Action Verbs (revised Bloom's Taxonomy)
- ✓ Verbs to Avoid
- ✓ Preferably 1 Goal (Action Verb) per Learning Outcome
- ✓ Connected to the Learning Content
- ✓ Examples:
 - K = *To define 'entrepreneurial mindset'.*
 - S = *To apply techniques to foster entrepreneurship.*
 - A = *To value an entrepreneurial mindset.*

Composition of Learning Outcomes at Different Levels of the European Qualifications Framework (EQF)

Unit 3

European Qualifications Framework (EQF)

- The EU developed the EQF as a translation tool **to make national qualifications easier to understand and more comparable** (based on the Recommendation on the European Qualifications Framework for Lifelong Learning, adopted by the European Parliament and the Council on 2008 (revised in 2017)).
- EQF seeks to support cross-border mobility of learners and workers and to promote lifelong learning and professional development across Europe.



What is the Purpose of the EQF?

CHALLENGE

Education and training systems differ across countries. Qualifications are diverse and reflect national rules and traditions.

WIDER IMPACTS

- Employability, mobility and social integration of workers and learners
- Foster lifelong learning
- Modernising education and training systems



SPECIFIC OBJECTIVE

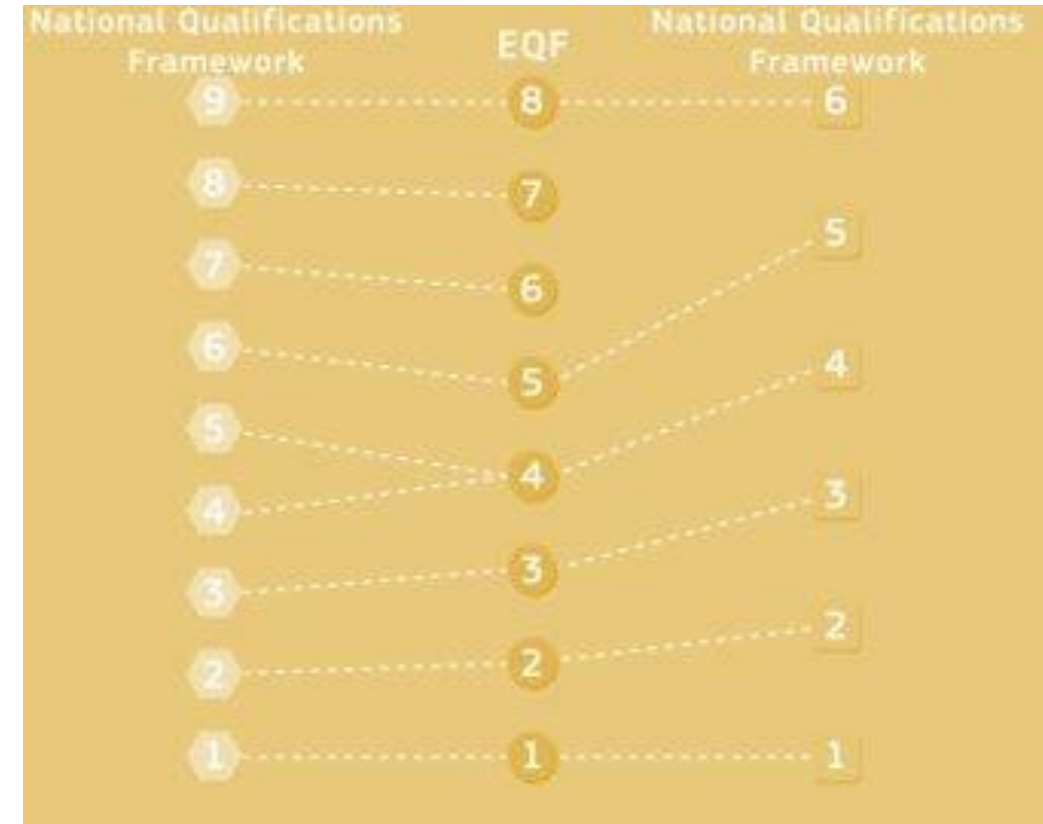
To improve the transparency, comparability and portability of people's qualifications

For Whom is EQF?



How does EQF Work?

- A translation for qualifications across countries.
- Defined in terms of learning outcomes (knowledge, skills, competences/abilities).
- 8-Level Reference Framework, covering all types and all levels of qualifications.
- 41 countries participate to the EQF process, including a third-country dimension (36 formally linked by January 2024).



Example of Alignment of an NQF with EQF (Cyprus)

THE CYPRUS QUALIFICATIONS FRAMEWORK					
NQF LEVELS	EDUCATIONAL/ACADEMIC QUALIFICATIONS			Occupational/Vocational Qualifications	EQF LEVELS
8	DOCTORAL DEGREE				8
7c	MASTER'S DEGREE				7
7b	POST GRADUATE DIPLOMA				
7a	POST GRADUATE CERTIFICATES				
6	UNIVERSITY DEGREE (PTYCHION/BACHELOR'S DEGREE)			SVQ <u>Level 6</u>	6
5c	HIGHER CERTIFICATES AND DIPLOMAS (3 years or more)			SVQ <u>Level 5</u>	5
5b	POST SECONDARY CERTIFICATES AND DIPLOMAS (2 years)				
5a	POST SECONDARY CERTIFICATES AND DIPLOMAS (1 year)				
4	UPPER SECONDARY GENERAL EDUCATION AND EVENING SCHOOLS CERTIFICATES (12th Class-or 12&13th for some private schools)- APOLYTERION	UPPER SECONDARY TECHNICAL AND VOCATIONAL EDUCATION AND EVENING TECHNICAL SCHOOLS CERTIFICATES (12th Class)- APOLYTERION		SVQ <u>Level 4</u>	4
3	LOWER SECONDARY EDUCATION CERTIFICATE 10th Class		NEW MODERN APPRENTICESHIP CERTIFICATE	SVQ <u>Level 3</u>	3
2	COMPULSORY LOWER SECONDARY EDUCATION CERTIFICATE 9th Class		PREPARATORY PROGRAMME (NEW MODERN APPRENTICESHIP)		2
1	COMPULSORY EDUCATION CERTIFICATE (Elementary School Leaving Certificate, and/or graduates of 7th and /or 8th Class)				1
*SVQ=SYSTEM OF VOCATIONAL QUALIFICATIONS					

*SVQ=SYSTEM OF VOCATIONAL QUALIFICATIONS

<https://www.cyqf.gov.cy/index.php/en/diagram>

08	Most advanced specialised skills/ extend & redefine knowledge/ critical problems
07	Specialised problem solving skills/research/ innovation new knowledge integrate different fields
06	Advanced skills generate creative solutions to complex/ unpredictable problems
05	Comprehensive range skills generate creative solutions to abstract problems
04	Range skills generate solutions to specific problems
03	Range of skills to solve problems selecting and applying basic methods, tools, materials and information
02	Basic skills to use relevant information solve routine problems using simple rules/ tools
01	Basic skills to carry out simple tasks

How Many Levels are There in EQF and What are They?

EQF and Learning Outcomes

- Each of the 8 Levels of the EQF is defined by a set of Descriptors indicating the Learning Outcomes relevant to qualifications at that Level in any qualifications' system.

In EQF, the Learning Outcomes are defined in terms of:

- 1. Knowledge** (theoretical and/or factual)
- 2. Skills** (cognitive and practical)
- 3. Responsibility and Autonomy** (ability to apply knowledge and skills autonomously and with responsibility)

Composing Learning Outcomes for the Different EQF Levels

	 Knowledge	 Skills	 Responsibility and autonomy	
	In the context of the EQF, knowledge is described as theoretical and/or factual.	In the context of EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).	In the context of the EQF, responsibility and autonomy is described as the ability of the learner to apply knowledge and skills autonomously and with responsibility.	
Level 1	Basic general knowledge.	Basic skills required to carry out simple tasks.	Work or study under direct supervision in a structured context.	Level 1
Level 2	Basic factual knowledge of a field of work or study.	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and solve routine problems using simple rules and tools.	Work or study under supervision with some autonomy.	Level 2
Level 3	Knowledge of facts, principles, processes and general concepts in a field of work or study.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information.	Take responsibility for completion of tasks in work or study. Adapt own behaviour to circumstances in solving problems.	Level 3
Level 4	Factual and theoretical knowledge in broad contexts within a field of work or study.	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study.	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change. Supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities.	Level 4
Level 5	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study, and an awareness of the boundaries of that knowledge.	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems.	Exercise management and supervision in contexts of work or study activities where there is unpredictable change. Review and develop performance of self and others.	Level 5
Level 6	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles.	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study.	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts. Take responsibility for managing professional development of individuals and groups.	Level 6
Level 7	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research. Critical awareness of knowledge issues in a field and at the interface between different fields.	Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures, and to integrate knowledge from different fields.	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches. Take responsibility for contributing to professional knowledge and practice, and/or for reviewing the strategic performance of teams.	Level 7
Level 8	Knowledge at the most advanced frontier of a field of work or study, and at the interface between fields.	The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation, and to extend and redefine existing knowledge or professional practice.	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts, including research.	Level 8

Level 5 - learning outcomes

Knowledge

Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge

Skills

A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems

Responsibility and autonomy

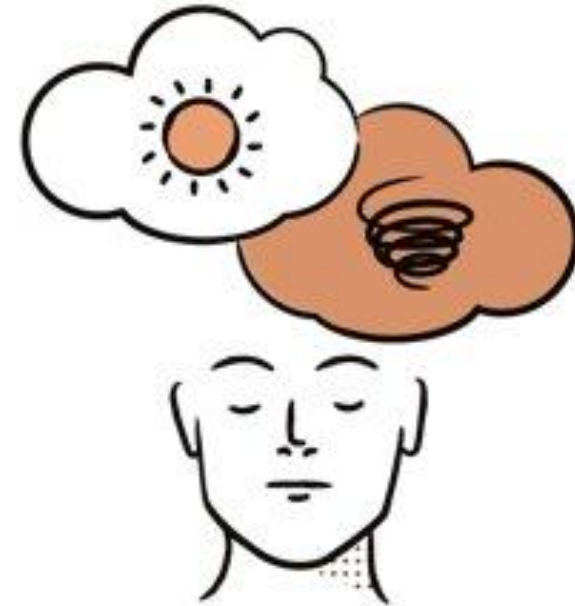
Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others

Exercise:
Development of Learning Outcomes for Key Skills
of RAPPORT at EQF Level 5

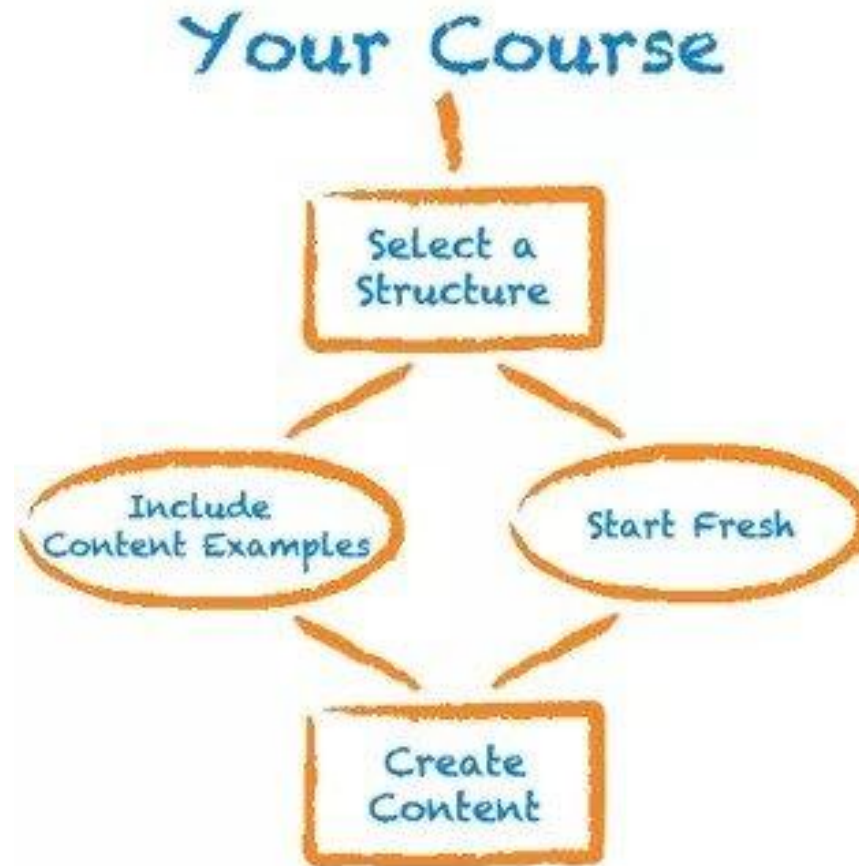
How-to

- Groups of 5 people
- Each group undertakes 1 Key Skill from **EntreComp**
- Development of learning outcomes of **3 types for each skill, at EQF Level 5**

- ✓ **Presentation**
- ✓ **Feedback**
- ✓ **Attention Points**



BPs in the Design of Training Modules for VET

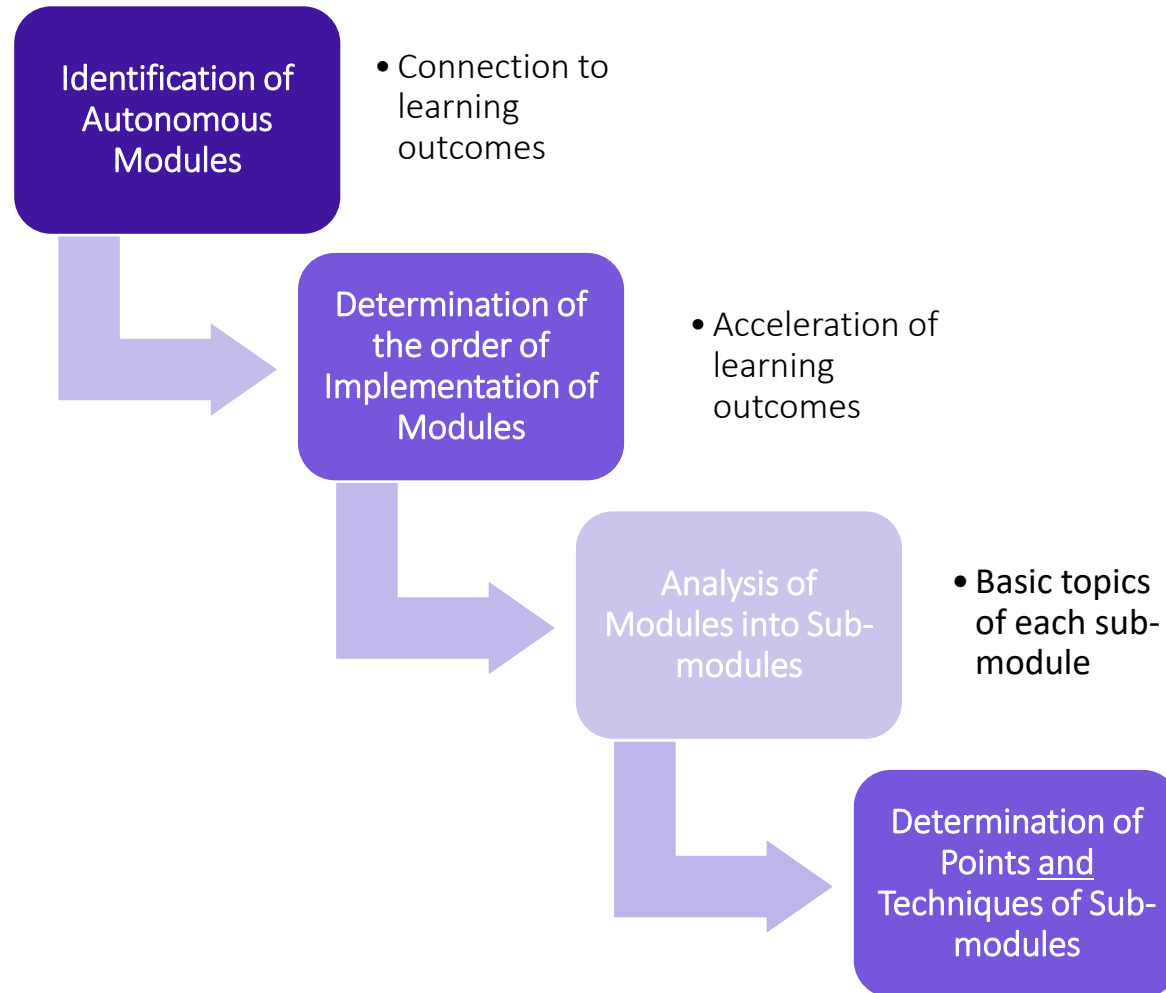


Key Step

Identification of the key concepts of the training programme or learning module:

- Extension
- Content
- Distinction between the theoretical and the practical part
- Sequence and coherence
- Degree of interactivity of learning modules
- Analytical timetable
- Level of interaction of the trainee with the learning material

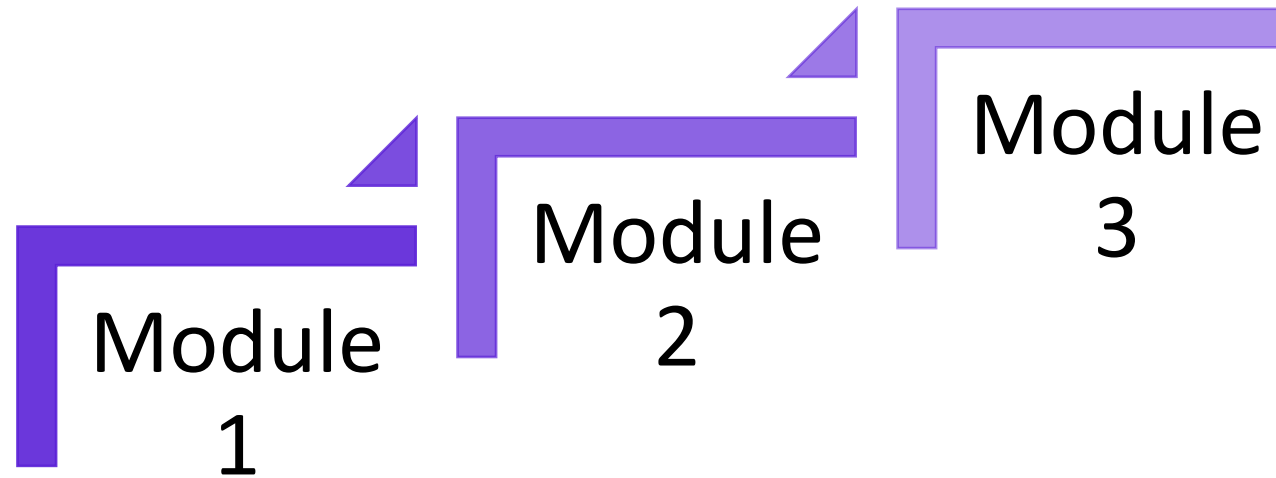
Structure of the Training Modules



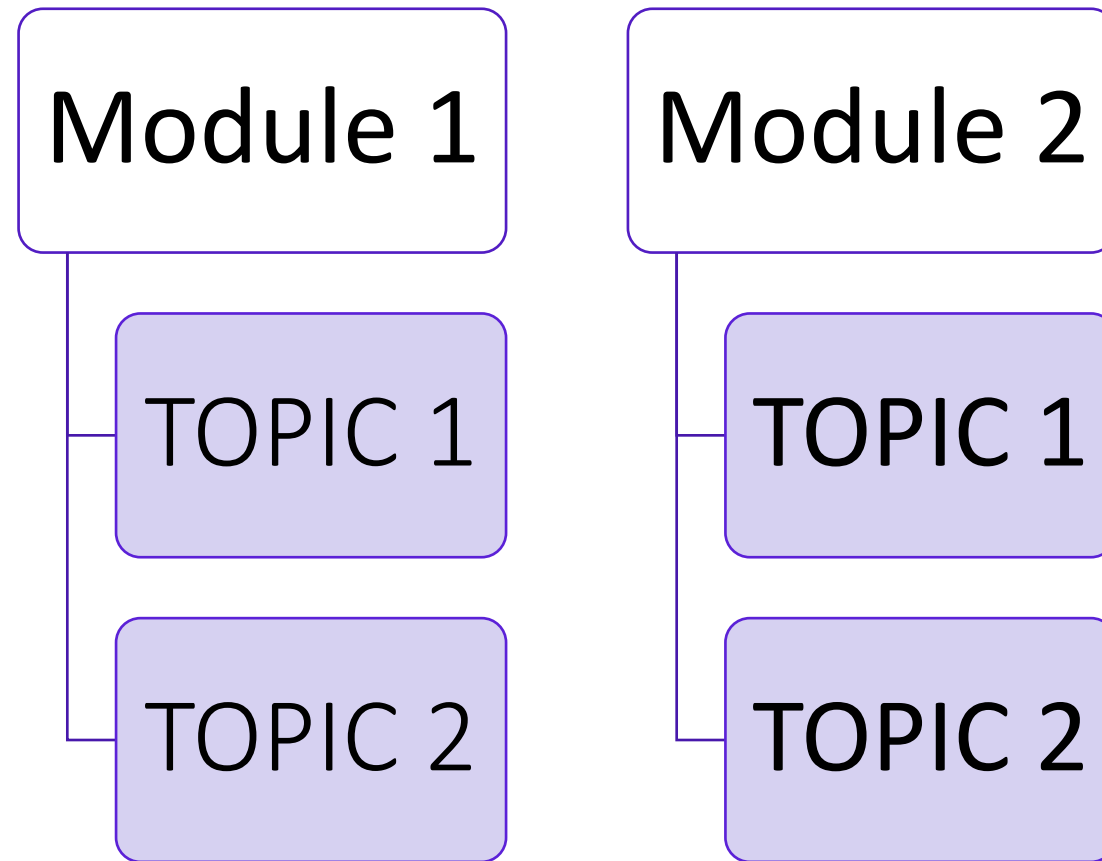
Connection to Learning Outcomes



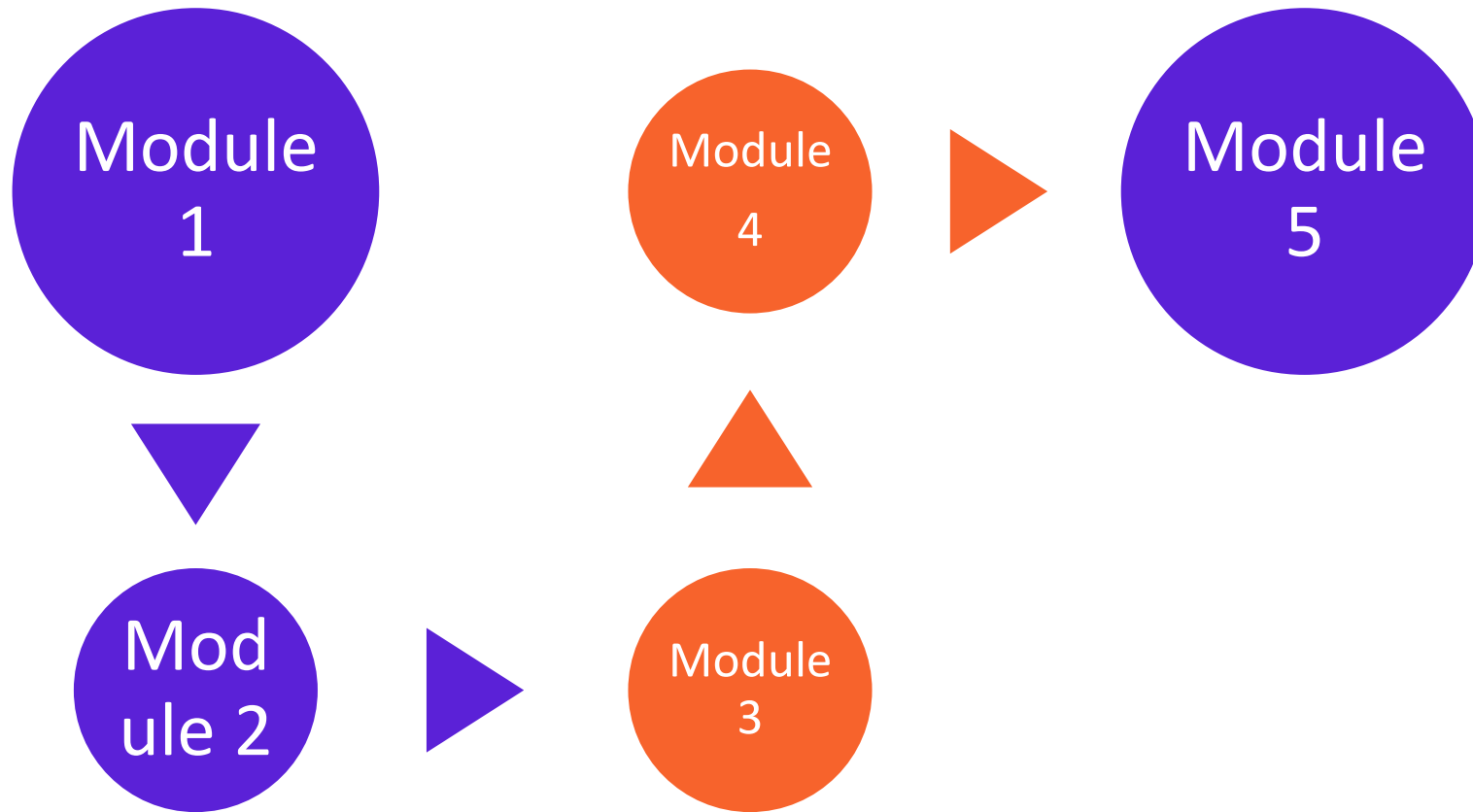
Route Map Development



Route Map in More Detail



Designing the Route Map of your Training Programme



Development of a Timetable

Titles for the Main Modules

- Titles for the Sub-modules (Topis)
- Points (Sub-topics)
- Techniques

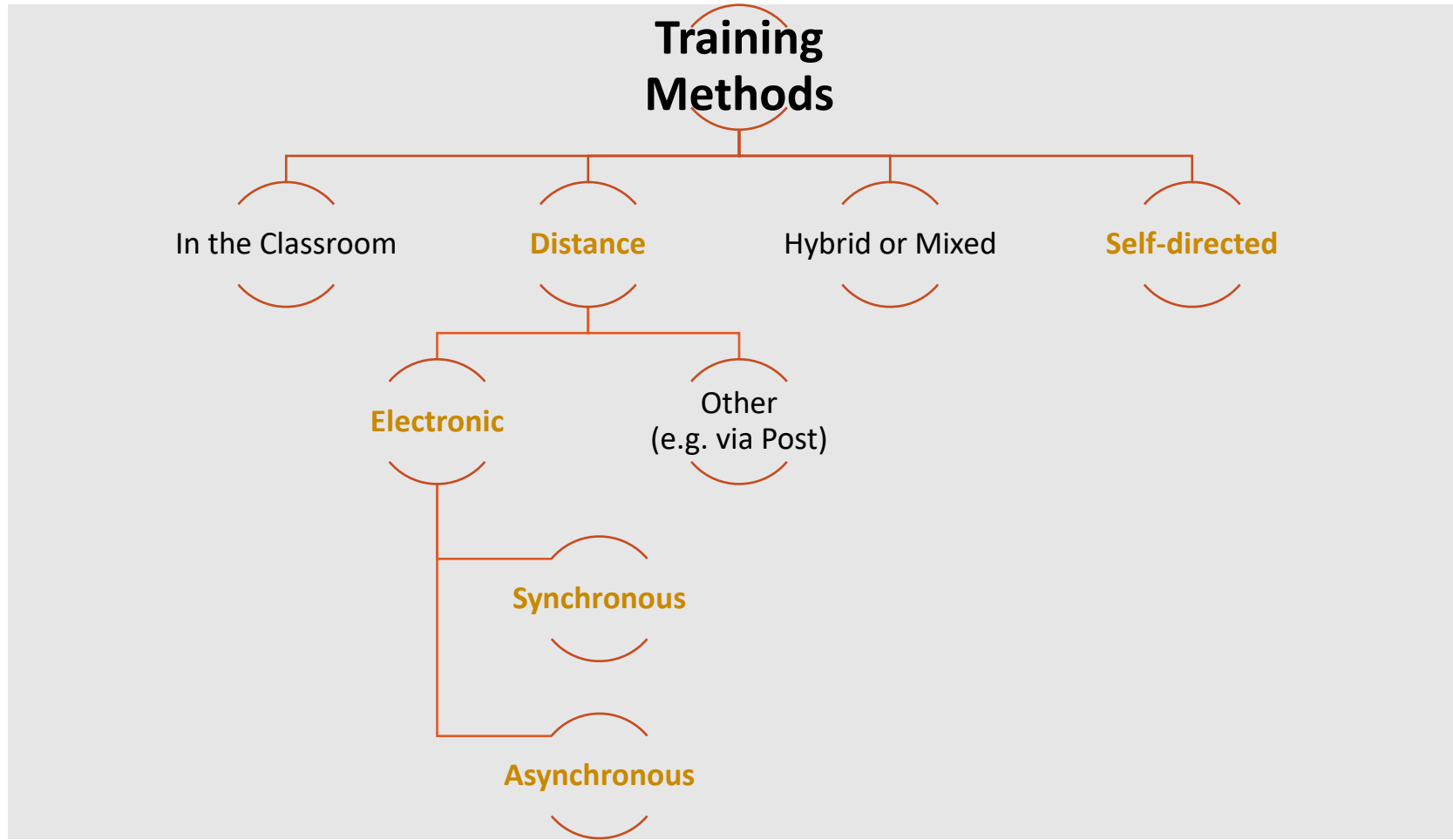
Training Program Schedule/Outline
(Describe the goals of the program, the schedule, and other pertinent details here.)
The location, timing, and process for each module are shown in the table below.

Module 1		
Location	Timing	Process
Classroom	1 week	Classroom learning includes the basic terminology and documentation guidelines.
Module 2		
Location	Timing	Process
Classroom/ Practice	2 weeks	Classroom learning includes: (details). Practice sessions are conducted in corresponding departments alongside a mentor. The mentors are occasionally invited to the classroom so the trainees can start getting familiar with them.
On-the-job	1 week (sometimes 2 depending on trainee/ employee experience)	The trainees work in their departments alongside their mentors to gain on-the-job experience.

Training Methods in VET and BPs in the Selection of Training Techniques for VET

Unit 4

Training Methods



Training Methods: Distance, Electronic, Synchronous-Asynchronous

Distance Learning

Instructor and trainees are not in the same room.

The training is provided through printed and/or electronic material.

The training can be supported by various means of communication.

The training can be **synchronous or asynchronous**.

Training Methods: Distance, Electronic, Synchronous-Asynchronous

Electronic Learning	Applied with the help of ICT.
Hybrid or Blended Learning	Combination of face-to-face (classroom) and distance learning.
Asynchronous E-learning	Applied with the help of ICT.
	Distance learning. Does not require simultaneous participation of trainees and trainers in the learning process.
Synchronous E-learning	Applied with the help of ICT.
	Distance learning. Requires simultaneous participation of trainees and trainers in the learning process.

Self-directed:

- A process in which individuals take the initiative, with or without the help of others, to diagnose their learning needs, formulate their learning goals, identify learning resources, select and implement learning strategies and assess their learning outcomes (Knowles, 1975).



Choose or develop Training Techniques

- Lecture / Presentation
- Discussion
- Questions & Answers
- Work in Groups (Group Exercise)
- Individual Exercise
- Case Study
- Experiential Workshop
- Literature Review
- Role Play
- Simulation
- Practical Exercise
- Demonstration

• Video Projection

• Other

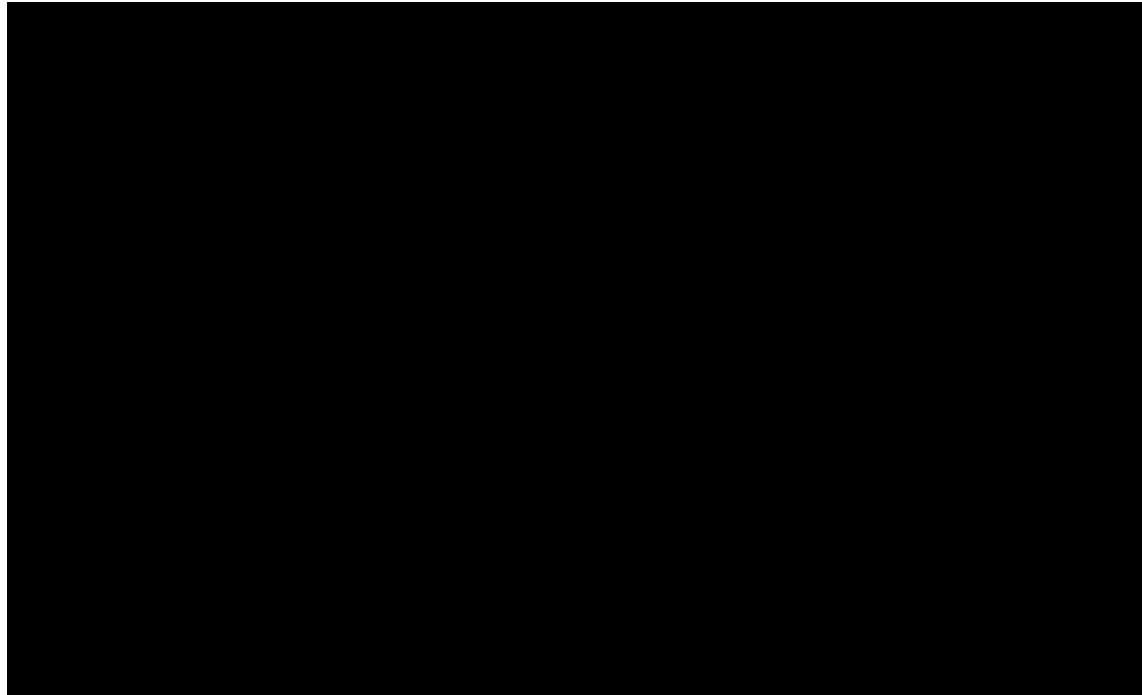


For Example...



Experiential Workshop

The learners **involve themselves in the learning process** by actively participating in the subject under study, using important pedagogical methods such as learning through discovery, empirical learning, learning in extreme conditions, intellectual learning, learning through the performance of a task.



Back-to-back Drawing

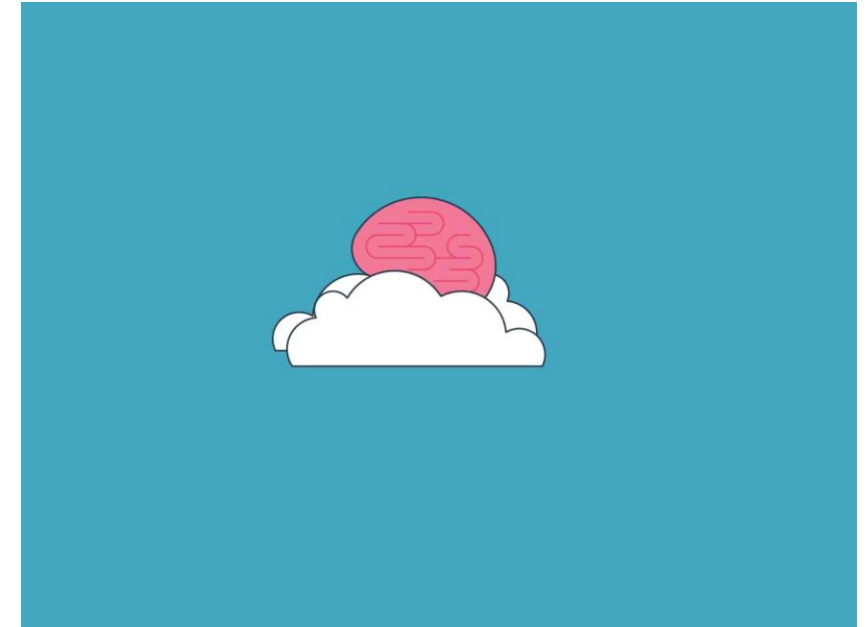


Walking through a Minefield



Brainstorming

- The learners are encouraged to express **freely, without any restrictions, ideas** on a specific topic.
- All ideas are recorded on a board **without exclusion** and then the learners are invited to explain them.
- Through the explanation, the ideas are grouped together and multiple aspects of the issue are highlighted.



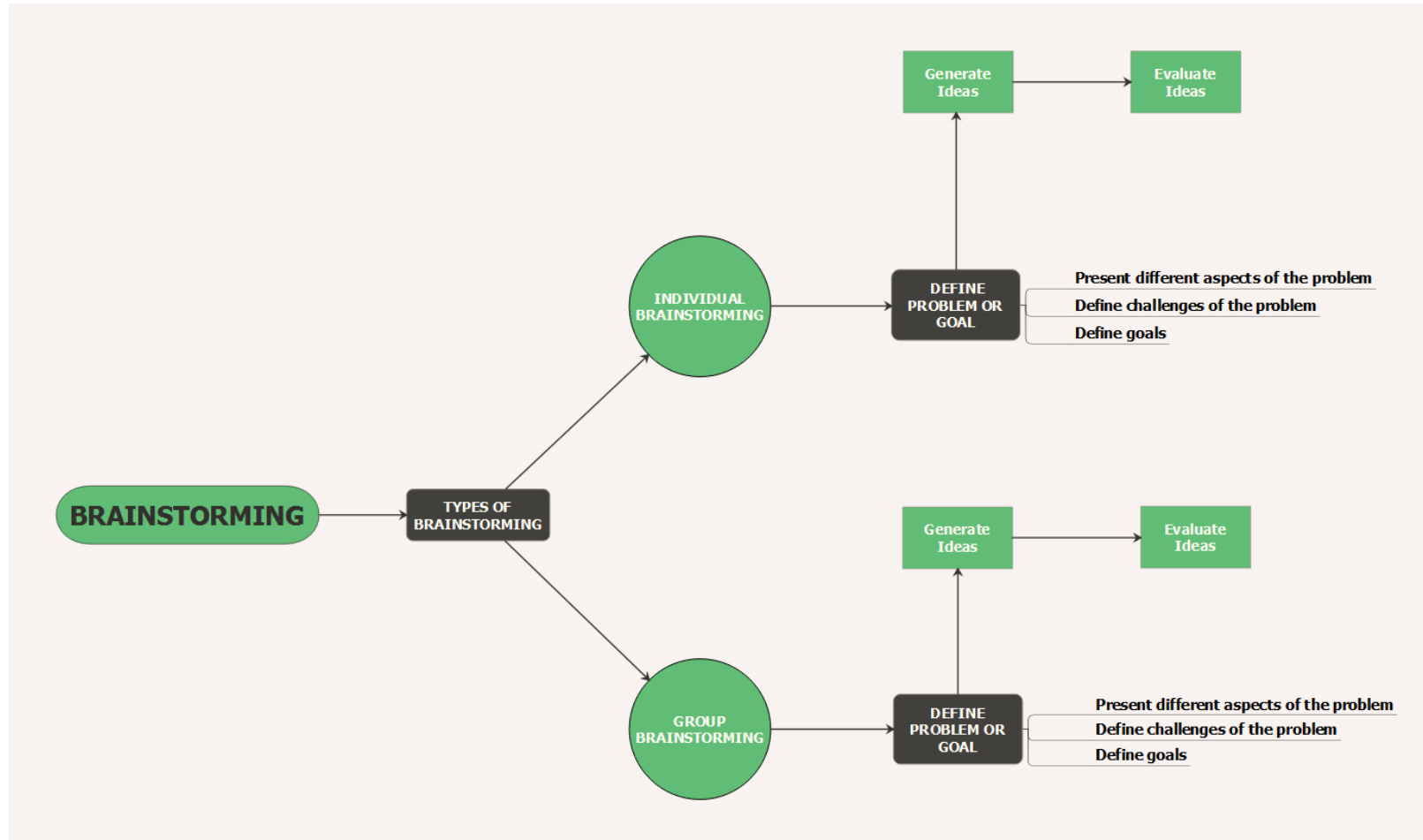
Brainstorming

PRESENTATION OF THE PROBLEM

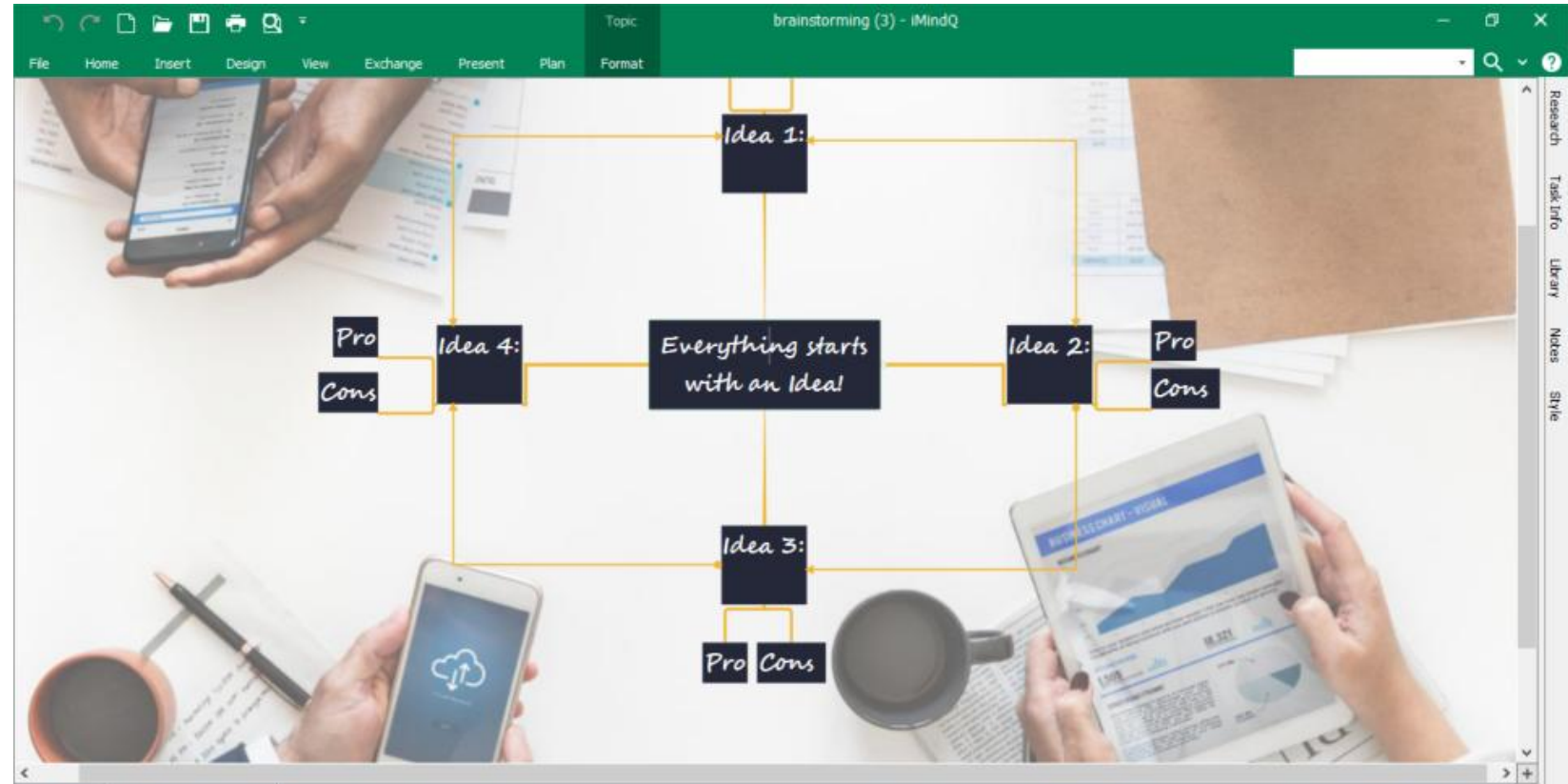
IDEAS

EVALUATION

Types of Brainstorming



Example of Brainstorming



Exercise: Brainstorming

- How can we facilitate the integration of migrants into the Cypriot society?



Case Study

- Based on the use of a real or hypothetical example.
- Problems whose solutions require the learners to:
 - Apply their new knowledge
 - Exercise the skills they have just acquired





Simulation

- A virtual environment (conditionally real, but without the consequences of the real) is created, in which learners are asked to **join and act** based on a **specific scenario** that depicts **real processes**.
- The emphasis is not on the environment but on the skills of the learners and how they can be used in real-life situations.



Simulation



Avalanche

- The trainer assigns the learners **an issue** on which to work on an individual basis.
- The learners then work in pairs, identifying **common points and differences and complementing each other**.
- Finally, the views of the groups are presented to the plenary, **synthesised, and conclusions drawn**.
- <https://www.teachingchannel.org/videos/snowball-technique-teaching>



What Led to the Titanic Tragedy



Role Play

- The trainer, based on a predefined scenario, assigns roles which the learners should play, with the aim to comprehend the educational material through experience.



Role Play

- Create real and clear situations
- Inform the learners from the beginning
- Give preparation time
- Minimise the 'threat'
- Play the role yourself
- Give a check list to the rest of the learners
- Give feedback



Exercise: Design your own Training Techniques

- The aim is to design techniques **for a training programme**:
 1. Use the skills that you have written down before.
 - 2 .Design 1 technique to achieve these objectives/outcomes.



Criteria for Choosing Training Techniques



Techniques Selection (Justification)

The main objective is to use **a variety of techniques** in order to make the training programme more interesting.

- **Selection Criteria:**

- **The learning style of the participants**

- The aim is to address learners with *different learning styles*.

- **The learning topic**

- The aim is for the technique to *maximise the learning outcome* of the subject matter. So, for example, one can acquire vocal skills in terms of tone and volume of voice with the help of vocal exercises, while the application of communication techniques to destress a dissatisfied customer can be achieved by role playing, etc.

Techniques Selection (Justification)

- **The time available**

If a module has a duration of 3 hours, for example, try to change the training technique every 10-15 minutes. All the techniques should have very specific objectives and be well prepared to be implemented in the available time frames.

- **The trainer's own, personal skills and training style**

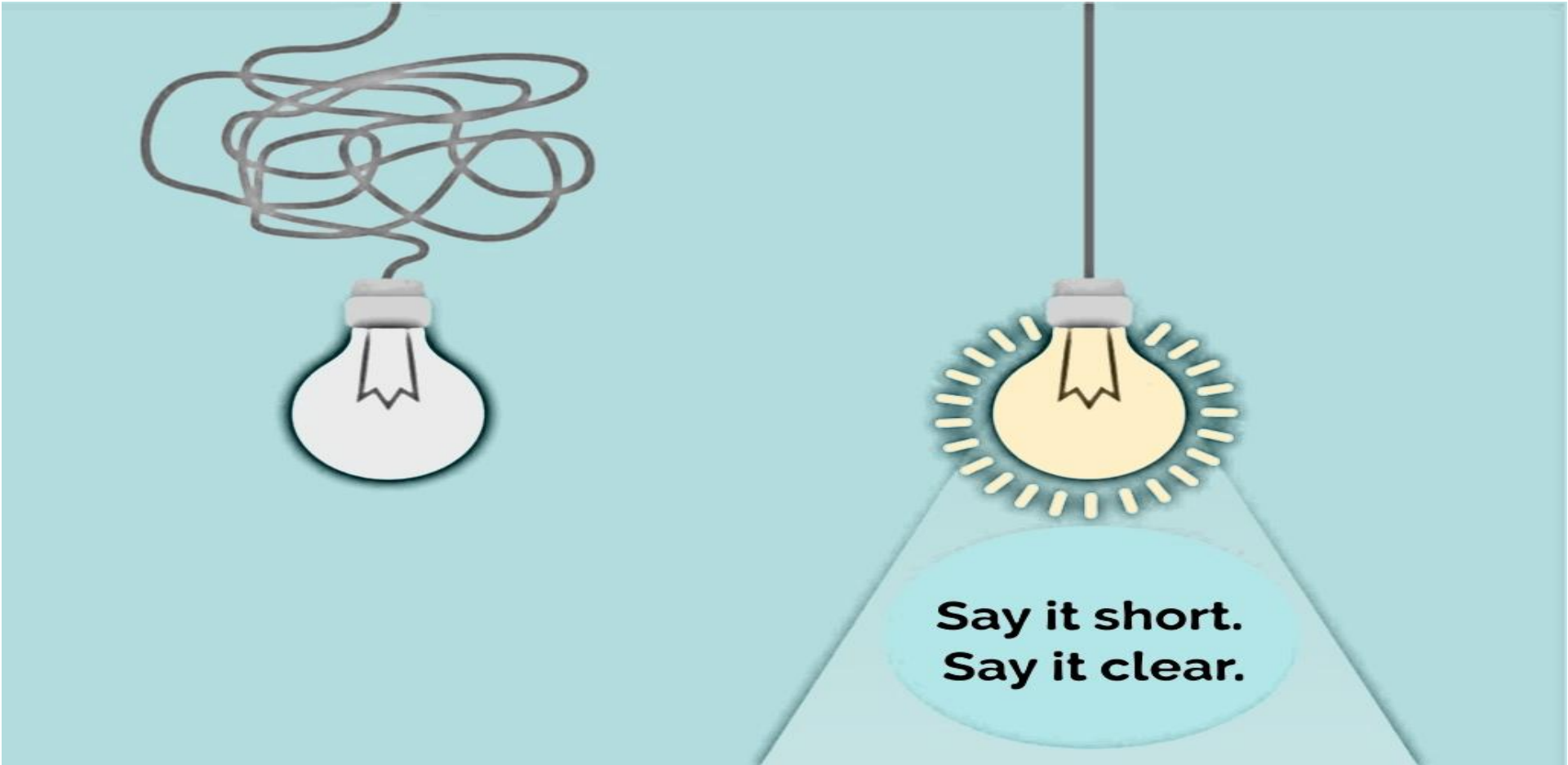
The trainer should choose techniques with which s/he is very familiar.

Key Question

What training techniques are suitable for Synchronous and Asynchronous E-learning, in your opinion?

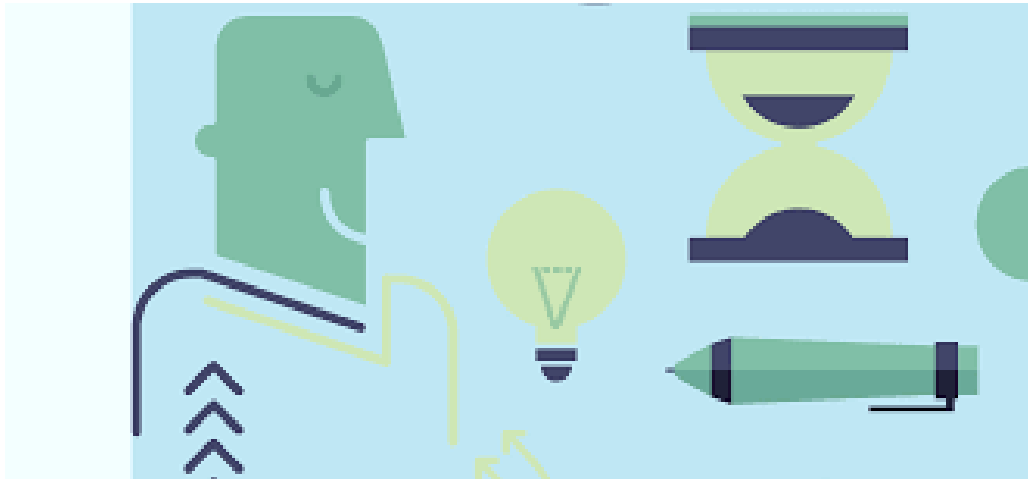
*Don't forget the **AIM**!*







Work-based Learning



- *Work-based learning refers to all forms of learning that takes place in a **real work environment**. It provides individuals with the **skills needed to successfully obtain and keep jobs and progress in their professional development**.*

RAPPORT: Work-based Component Integration

Case Study

Project Implementation

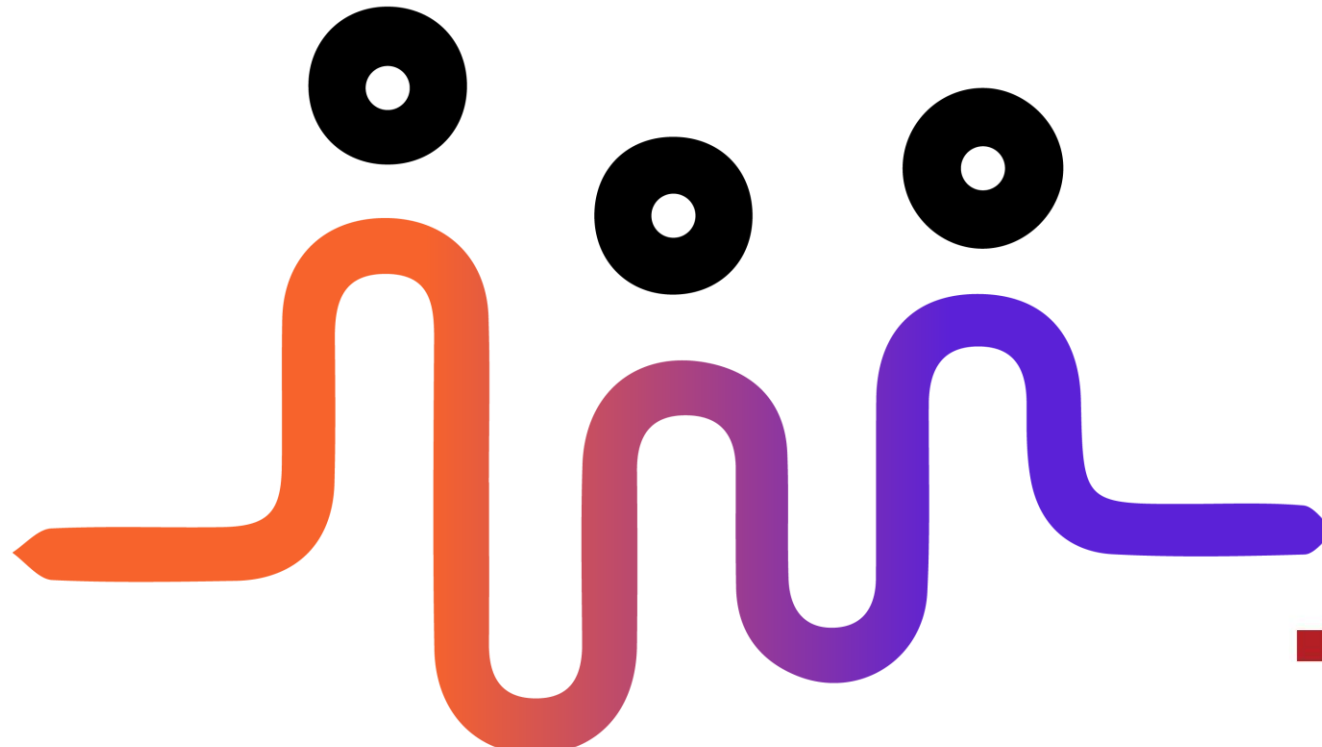
Study Visit Implementation

(Internship/Traineeship/Apprenticeship Implementation)

Key Question

- What are some necessary decisions to be taken on that topic?

Note: Once per partner country



Conclusions on the Approach to be Followed

Learning Outcomes Development
Training Modules Structuring
Training Techniques Selection
Work-based Component Integration

Summary of Key Points and Next Steps

Any questions?

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Thank you!



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