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### The Mu.SA Methodology

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Co-funded by the Erasmus+ Programme of the European Union





**U.** PORTO







### Design and development of VET curricula





4/15/2020



### Design and development of VET curricula

Methodology for Mu.SA courses adopts **ADDIE model** 



Analysis, Design, Development, Implementation and Evaluation



4/15/2020

### Analysis, Design, Development, Implementation and Evaluation





4/15/2020



#### Analysis phase





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**D**esign Phase







#### Outcomes: B1, B2, B3, B5 Fill in Tables TB1, TB1.1, TB2, TB2.1, TB2.2, TB2.3 Corrections needed Technical specification **D**esign Phase check Corrections needed Formative OK. Flowchart evaluation Scientific content check оĸ Outcomes: B4 Fill in Tables TB3, TB3a Corrections needed Technical specification check Corrections needed Formative ŌК evaluation Scientific content check ÓК Co-funded by the



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#### **D**evelopment Phase





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Bloom's taxonomy of cognitive domain of the six levels





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#### **D**evelopment Phase



HOU sets platform, uploads the final content, user manual

All Authors/Tutors + Technicians = Content final



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#### **I**mlementation Phase





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#### **E**valuation Phase





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TB2: COURSE UNIT (LEARNING ACTIVITY) DESCRIPTION

			1	Unit title	Title of Unit	
TB1: COURSE MODULE DESCRIPTION				Unit code	Unit code (should be consistent and should reflect the corresponding module)	
1	Course Module title	Title of Course Module	3	Unit description	Description of the Unit (learning activity) (up to 100 words)	
2	Course Module code	Course Module code				
3	Course Module description	Description of the module (up to 100 words)	4	Educational strategy	Description of the educational strategy (e.g. presentation, role playing, case study) will be adopted for the specific unit (learning activity)	
4	Knowledge domain	Knowledge domain of the module		Learning outcomes	Perard the Learning Outcomes for the specific unit. Use	
5	Learning objectives	ives Learning objectives (4 up to 10) for the specific		(LOut)	TB2.1.	
		course module	6	Unit core material (Learning object (LO)) (code and title)	List of Learning objects (videos, presentations, etc.) included in the specific unit (codes should be consistent and should reflect the corresponding unit)	
6	Module schedule (course units codes, titles and	Specify for each module; the codes, the titles and the description of every unit (learning activity)				
	description)	Please fill in Table TB1.1		Unit additional material	List of additional material (e-books, additional readings, etc) included in the specific unit (codes should be consistent and should reflect the corresponding unit)	
7	Assessment method	Description of the means and tools of the learners' assessment for the specific course Module	7	(code and title)		
			8	Collaboration objects (code and title)	List of Collaboration objects (e.g. forum) included in the specific unit (codes should be consistent and should reflect the corresponding unit)	
			9	Assessment objects (projects, self- evaluation exercises, etc.) ( code and title)	Detailed description of the learners' assessment for the specific unit (codes should be consistent and should reflect the corresponding unit)	
			10	Unit schedule	Description of the educational path for the defined unit	
			11	Key words	Key words (3 to 10)	

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		4	Lea
TB2.1	: Learning outcomes for the Cognitive domain (Bloom Taxonomy)		
Code	Learning Outcome (please underline the verb and the concept of the		
	kilowiedge dollialit used)	5	Lan
1. Kno	owledge level		
		6	Lea (IE
2. Cor	nprehension level		
3. Apr	plication level		
4. Ana	alysis level		
E Cur	thesis level		
5. Syr			
6. Eva	luation level		

TB3: Le

1

2

3

: Learning Object							
Learning object title	Title of Learning object			]			
Learning object code	Enter a code for future refere	nce					
Learning activity code	Learning activity code belong	s to					
Learning object description	Description of the Learning of (up to 100 words)	bjec	t				
Language	Language for the specific lear	ning	y object				
Learning recourse type (IEEE LOM)	Definition of the learning reco (theory, simulation, experime specific learning object	ourse ent,	e type etc.) for the				
	1. Guidelines 7 Te		Technical type (IE	Technical type (IEEE LOM)		Definition of the technical type (document, video, wiki etc.) for the specific learning object	
	<i>3. Demonstration</i> <i>4. Lecture</i>				Text	Document Hypertext	
	5. Definition-Principle-Law 6. Narrative Text (theory) 7. Analogy 8. Example 9. Activity Case Study Problem Solving Text Composition				Image	Photo Map Graph Image	
					Streaming media	Audio Recording Animation Self-running Presentation Webcast Video	
	Else (specify) 10. Simulation Interactive				Application	Interactive Software Hypermedia Application Wiki Presentation	
	Non Interactive 11.Self-Assessment Multiple Choice Questions		Workload (Estimated study time) (min)		The estimated study time needed for an average learner in minutes		
	Open Type Question	9	Key words		Key words (3 to 1	0)	
	Problem Statement Else (specify) 12. Experiment 13. Serious Game 14. Exercise Multiple Choice Questions Open Type Question	10	Learning outcome	es (LOut)	Record the Learning Outcomes for the specific learning object (should be a subset of the learning outcomes defined in the corresponded unit (learning activity)). In case you define more learning outcomes than those defined in the relative unit (learning activity) please update appropriately the relative unit learning outcomes field.		
Problem Statement Else (specify) 15. Project							



	твз	a: Learning Object (Assess	earning Object (Assessment Object)			
	1	Learning object title	Title of Learning (Assessment) object			
MUSA	2	Learning object code	Enter a code for fu	iture reference		
museum sector alliance	3	Learning activity code	Learning activity c	code belongs to		
	4	Learning object description	Description of the object (up to 100 words)	Learning (Assess	ment)	
	5	Language	Language for the specific learning object			
	6	earning recourse type IEEE LOM) Definition of the learning recourse type (theory, simulation, experiment, etc.) for th specific learning object 9. Activity				
			Case Study		Question t	emplate
			Problem Solvin Text Composit	ng ion	No.	
			Question		Question (s	tem)
			Else (specify) 11 Self-Assessment		Possible and	swers
			Multiple Choice	e Questions	Correct ans	wer
			Open Type Que Problem State	estion ment	Response to answer	ocorrect
			14. Exercise Multiple Choice	e Questions	Response to answer(s)	o wrong
			Open Type Question Problem Statement		Times the q can be take	uestion n
			EISE (Specify)	1	Is the quest	ion part
	7	Technical type (IEEE LOM)	Text	Document	of a test?	
	8 V t	Workload (Estimated study time) (min)	The estimated study time needed for an average learner in minutes		or an	
	9	Key words	Key words (3 to 1	0)		
	10	Learning outcomes (LOut)	t) Record the Learning Outcomes for the speci learning object (should be a subset of the learning outcomes defined in the correspond unit (learning activity)). In case you define more learning outcomes than those defined the relative unit (learning activity) please		the specific of the prresponded u define e defined in please	
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TB3b: Learning Object (Practical assignments)							
1	Learning object (practical assignments) title	Title of practical assign	nments				
2	Learning object (practical assignments) code	Enter a code for future	e reference				
3	Learning activity (Unit) code	Learning activity (Unit,	) code belongs to	8	Workload (Estimated study time) (min)	The estimated study time needed for an average learner in minutes	
4	Learning object (practical assignments) description	Description of the prac	ctical assignments (up to 100 words)	9	Key words	Key words (3 to 10)	
5	Language	Language for the spec	ific learning object	10	10 Learning outcomes (LOut)	Record the Learning Outcomes for the specific practical assignments (should be a subset of the learning outcomes	
6	Learning recourse type (IEEE LOM)	e (IEEE LOM) Definition of the learning recourse type (theory, simulation, experiment, etc.) for the specific learning object (practical assignments) 8. Example 9. Activity Case Study Problem Solving Text Composition Question Else (specify) 15. Project				defined in the corresponded unit (learning activity)). In case you define more learning outcomes than those defined in the relative unit (learning activity) please update appropriately the relative unit learning outcomes field.	
					Extended practical assignments description	Provide the subject; describe the content of the practical assignment and the expected outcomes. Provide learners with 3 to 5 phrases that constitute the axes for this practical assignments or the methodology that they should follow to deal and answer it.	
					Preparatory / Additional material (literature, further readings)	Provide preparatory materials, which can take the form of references, literature, additional readings (presentation slides, audio lectures or video lectures etc.) needed to deal with this practical assignments.	
7	Technical type (IEEE LOM) Definition of the technical type (document, video, wiki etc.) for the specific learning object (practical		13	Answer extension (Words quantity)	Expected range of words for the accepted answers		
		Text Document Hypertext		14	Exemplary answer	Provide a brief exemplary answer, describing the key points of subjects or sentences a correct answer should include. Also provide any common wrong answer that trainees are	
1	Co-funded by the Erasmus+ Programme	4/15/2020	http://www	w r	roject-musa eu/	expected to give and the feedback comments that should be given by the trainers. Provide any other information necessary for the trainer to support his role and to be able to grade the answer.	



- Self produced material
- Open educational resources/ external learning objects





- Self produced material
- Open educational resources/ external learning objects





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#### >Next action as Mu.SA project





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#### MUSA museum sector alliance

Achilles Kameas, Project coordinator Spiros Borotis, Project Manager Christos Pierrakeas, Educational Manager Panagiota Polymeropoulou, Researcher Theodor Panagiotakopoulos, Researcher Kostantinos Giannakopoulos, Researcher Ioannis Calemis, Platform Technician Ioannis Messalas, Website Technician Elisabeth Pirounia, Video Editor Ioanna Marini, Administrative



