![digifind logo] Enhance Adult Learners Digital Skills for Furniture Industry

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DigiFInd

Enhance Adult Learners Digital Skills for Furniture Industry

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KA2 - Cooperation for Innovation and the Exchange of Good Practices

KA204 - Strategic Partnerships for adult education

O1-A3: Design of the Training Programme for Trainers

Deliverable within **Intellectual Output 1**:

Training programme for trainers, aimed at providing training in Digital skills and Industry 4.0 for low-skilled Adult learners in Furniture industry

Lead Partner	UNWE
Contributing Partners	PAIZ, INTERKRES, EFFEBI, FHM, CESPIM, BIA, FMT

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Document Version Control

v1	Draft	First draft version developed by PAIZ +Partners
v2	Draft	Second version feedback by PAIZ
v3	Draft	Third version developed by Partners
v4	Final	Final version developed by PAIZ + Partners

Training curriculum

Name of the training	Training programme for trainers, aimed at providing training in Digital skills and Industry 4.0 for low-skilled Adult learners in Furniture industry
Training Goal	This training will help trainers working in the furniture industry to work with low skilled learners in Industry 4.0 , in line with actual needs and challenges.

Module I	Furniture industry - essential information for trainers
Module content	**1. Challenges and trends in the furniture industry regarding digital and Industry 4.0 transformation** a. Introduction; What is important of Industry 4.0 policies; Key characteristics of digital and Industry 4.0 transformation; Key challenges in the Furniture industry b. Trends in the Furniture industry. Need to improve the digital skills: different for low-skilled and other Adult learners (such as basic and specific digital skills; CAD-type software...). c. General framework of the furniture sector in each specific country. d. Needs of companies to achieve the new production standards required by industry 4.0 e. Networked production oriented towards customers with personalized preferences (design, customized products), the growing complexity of production and the online marketing push. f. Lack of interest in acquiring new skills among employees and lack of basic digital skills needed to be able to understand more advanced in specific training. **2. Most relevant digital skills and competences for low-skilled adults in Furniture industry** a. Relevant digital skills in Furniture Industry b. Basic, intermediate and advanced digital skills in Furniture industry c. Practical examples from Furniture industry d. Training curriculum for trainers, aimed at providing training in Digital skills and Industry 4.0 for low-skilled Adult learners in Furniture industry

Objectives (knowledge and skills)	On completion of this module trainers will:
	1. understand the importance of Industry 4.0 for the industry.
	2. understand the need to improve the digital skills, in accordance with trends in the Furniture industry.
	3. recognize level of implementation of digitalization in furniture sector compared to other sectors.
	4. know the specific features of furniture sector (especially for SME's sector) in their own country.
	5. understand the characteristics of the market demand (customers preferences in the furniture sector about design, technology, etc.)
	6. recognize the most relevant digital skills and competences for low-skilled adults in Furniture Industry
	7. distinguish the difference between basic, intermediate and more advanced digital skills
	8. learn practical examples of technological solutions for concrete business activities in Furniture industry
	9. customize the training curriculum provided
	10. design a lesson for the specific needs of the low-skilled adults
Delivery methods	1. <u>Presentation with animation and narration:</u> Challenges and trends in the Furniture industry regarding digital and Industry 4.0 transformation
	2. Activity: <u>Do it for yourself.</u> Build your own checklist for preparation of training: steps for delivering educational content, such as: create course materials, create animations, create narrations, prepare materials for publishing, publish content.
	3. Activity: <u>Activity Read/watch and share your opinion.</u> - European Report: On the identified most relevant digital skills and competences for low-skilled adults in Furniture industry. - https://ec.europa.eu/digital-single-market/en/fourth-industrial-revolution
	4. <u>Knowledge quiz.</u> Test knowledge with feedback: questions and answers (what are the wrong answers and why).
	5. Presentation with narration: Relevant digital skills in Furniture Industry
	6. Activity <u>Read/watch and share your opinion</u>: Watch the video "How to thrive in Industry 4.0" https://www.youtube.com/watch?v=jXarjmelLrw and share your opinion in the Learner's forum: what employees need in terms of skills and competences, to be prepared to tackle the challenge coming with the digitalization?

Watch the video "What if furniture had superpowers?" https://www.youtube.com/watch?v=SQwpuQhWizA&list=PLXuyTLrB1pkNt8OAU4Gh5I92_UvAoxloV&index=1 and share your opinion: Do technologies like robotics and IoT applied to Furniture Industry, offer an appropriate solution to cope with smaller living/working place? What kind of barriers you could face?

7. Activity Read/watch and share your opinion: read a text on the digital skills in furniture industry and their differentiation among levels "European Report: On the identified most relevant digital skills and competences for low-skilled adults in Furniture industry" and provide your opinion on a learner forum on the 4 main areas identified and their adequacy in relation to the gradual subdivision of the skills training (Basic; Intermediate – for Customer relations; Advanced – Production Processes and Specific Computer science skills)

8. Activity Read/watch and share your opinion: Practical examples from Furniture industry

9. Activity Read/watch and share your opinion: read the training curriculum provided and comment in the Learners' forum: do the contents of the units cover the Learning outcomes defined?

10. Activity Do it and share your opinion/comment on a learner forum: based on the template provided, adapt the contents of the training according to the previously identified needs

11. Activity Upload and invite others to evaluate: create a training session including at least one of each digital skills level (basic, intermediate and advanced)

Module II	New methods and tools for trainers to be used in teaching digital skills and Industry 4.0
Module content	**1. Innovative teaching methods (ex. bite-size learning, mobile learning, gamification …)** a. Requirements for specialized didactic tools b. Methods and tools concerning online-learning c. Frameworks to train machine-to-machine (M2M) communication d. Frameworks to train big data management/ analysis - MATLAB e. Frameworks to train IoT- Applications f. Frameworks to train big data analysis **2. Assessment tools available online for trainers**
Objectives (knowledge and skills)	<u>On completion of this module trainers will:</u> 1. Understand special requirements for didactic tools when teaching digital skills 2. Know about latest methods and tools concerning online-learning 3. Be able to adopt above methods, in particular use three important experimental tools for experimenting after understanding the content of the module • Setup, install a free MATLAB test account and conduct experiments • Setup a free ThingSpeak account and conduct experiments • Use free Hadoop Cloudera for own experiments (if available) 4. In particular: • Will know about experimental equipment that is used to teach machine-to-machine (M2M) communication • Know about major features and options of MATLAB concerning its adoption for teaching big data management • Will be capable to develop and test Internet of Things (IoT)/ Cloud Computing-ThinkSpeak applications and integrate ThigSpeak into didactic approaches • To provide big data analysis examples by adopting Hadoop Cloudera 5. In addition trainers will be able to • recognize the importance of different tools represented in the classroom for training design and delivery

	• develop a curriculum based on the availability of the tools • run a Thingspeak and Matlab demonstration program 6. Revise the traditional assessment methods and tools and particularize the proper ones for developing digital skills in the furniture industry 7. Update their knowledge and practice to the latest assessment methods and tools, especially the ICT-based ones, for developing digital skills in the furniture industry 8. Design and put into practice the specific tools for diagnostic, formative and summative assessment of learners' development of digital skills in the furniture industry whereas comparing and contrasting their efficiency
Delivery methods	1. Presentation: Didactic tools for teaching digital skills 2. Presentation: How to adopt Online-Purpose for digital skills training purposes 3. Presentation: Experiments and equipment for teaching m2m-communication 4. Presentation: MATLAB for teaching big data management with support of MATHWORKS 5. Presentation: Features of ThigSpeak in terms of digital skills training purposes 6. Online-Demonstrator: Conduction of Thingspeak Examples 7. Presentation: Features of Hadoop Cloudera in terms of digital skills training purposes 8. Online-Demonstrator: Usage of Hadoop Cloudera (if available for the project) 9. Presentation with narration: Assessment tools available online for trainers 10. Activity: Read/watch and share your opinion: Off-the-job versus on-the-job training for developing digital skills in furniture industry 11. Activity: Do it and share your opinion/comment on a learner forum: What assessment methods are the most effective in low skilled adult training in the furniture industry? 12. Activity: Do it for yourself: Create an online diagnosis assessment test adapted for low-skilled adults in the furniture industry. Present its aim and objectives. Use at least 3 different tools to create the assessment items. 13. Knowledge quiz

Module III	Principles and models used in adult learning
Module content	1. **Principles of adult learning** 2. **Learning styles** 3. **Learning objectives** 4. **How to prepare for trainings**
Objectives (knowledge and skills)	On completion of this module trainers will be able to: 1. recognize the importance of different learning styles represented in the classroom for training design and delivery 2. develop the curriculum taking into consideration the needs of each learning style 3. design the training minding the Kolb cycle and principles of adult learning 4. write learning objectives describing the expected student's performance 5. appreciate the importance of learning objectives for training and learning evaluation 6. use learning objectives to design the training flow 7. prepare their own "trainer's preparation checklist" 8. use the checklist to prepare for every training
Delivery methods	1. Presentation with narration: Principles of adult learning 2. Activity Asses yourself: How good are you as a trainer? 3. Activity Read/watch and share your opinion: Bring on the learning revolution! https://youtu.be/kFMZrEABdw4 (Q: Recall the quote from A. Lincoln's speech and share your opinion on the ideas or theories that are still alive in teaching although they are no longer adequate to the changed reality.) 4. Presentation with narration: Learning Styles 5. Activity Do it and share your opinion/comment on a learner forum: What do you do during your trainings to make learning easier for each learning style? 6. Activity Read/watch and share your opinion : Learning styles & the importance of critical self-reflection https://youtu.be/855Now8h5Rs; Q: Share what stuck with you after having watched the presentation. 7. Presentation with narration: Learning objectives 8. Activity Do it for yourself: Prepare learning objectives for one of your training session or case study. 9. Activity Upload and invite others to evaluate: Upload your learning objectives and let

others evaluate

10. Presentation with narration: How to prepare for trainings

11. Activity Read/watch and share your opinion: Share your techniques for stress management that you found effective

12. Activity Do it for yourself: Build your own checklist for preparation for trainings

13. Activity Upload and invite others to evaluate: Upload your checklist and let others evaluate

14. Knowledge quiz

Module IV	Improving training process - guidelines for trainers
Module content	1. **Instructional Design** 2. **Online trainer tools for workshop planning and facilitation** 3. **Crucial trainers skills** 4. **Techniques to capture learners attention**
Objectives (knowledge and skills)	Upon completion of this module trainers will be able to: 1. design a training following the questions from the Training Wheel model 2. use selected online trainer tools to design trainings 3. distinguish between training and facilitation skills understanding the conditions for effective use of each of the two 4. design a facilitated session 5. choose attention grabbers adequate for the audience 6. pay attention and eliminate their own distracting trainer behaviors that may hinder learning
Delivery methods	1. Presentation with narration: Instructional Design 2. Read the text: Online trainer tools for workshop planning and facilitation 3. Activity: Read/watch and share your opinion : Which trainer tools have you tried out and consider most valuable for you as a trainer? 4. Activity: Do it for yourself: Design one training session using "4 Step Training Wheel" and selected online trainer tool. (we need to add a form) 5. Activity: Upload and invite others to evaluate Upload your work (designed session using "4 Step Training Wheel") and let others evaluate

	6. <u>Presentation with narration</u>: Crucial trainers skills
	7. Activity: Share your ideas on where during the training and with what learning objectives in mind you would recommend using a facilitated session
	8. <u>Presentation with narration</u>: Techniques to capture learner attention
	9. Activity: <u>Read/watch and share your opinion</u>: Julian Treasure - How to speak so that people want to listen (Q: What habits that trainers have may hinder knowledge apprehension by adult learners?) (https://www.ted.com/talks/julian_treasure_how_to_speak_so_that_people_want_to_listen)
	10. Activity: <u>Upload and invite others to evaluate</u>: Describe one technique you use to grab and keep your learners' attention; when you are done let others evaluate
	11. <u>Knowledge quiz</u>