

Digital education and microlessons, innovative models in nowadays education

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Abstract. This paper presents a summary of some of the main findings from research carried out through focus groups, questionnaires and various other types of face-to-face and online meetings with people directly involved in adult education on the need to transform traditional teaching and learning. Along with other innovative educational models, digital education and micro-lessons are considered opportune in the current context of digital development and imperiously necessary and appropriate to the profile of today's learners. After a few introductory notes on the subject, the research methodology is briefly presented, followed by a summary of the main results obtained, ending with the general conclusion as innovative educational models that must become, as soon as possible, common models in formal and informal education at all levels.

1. Introduction

On the background of the ever faster technological evolution, due to multifactorial considerations, in the last decades there has been a more and more imperative need to change the traditional methods of education and training, by adopting and constantly updating innovative models and methods, in line with the new trends and needs. Concerns in this regard are found at all levels, international, European, national, organizational, and among educators, researchers, and policymakers.

In the UNESCO article "The turning point: Why we must transform education now" from 2022, the digital transformation is included, along with other key areas in education that need to be transformed: inclusive, equitable, safe and healthy schools; learning and skills for life, work and sustainable development; teachers, teaching and the teaching profession; digital learning and transformation; financing of education [1]. The Transforming Education Summit aimed, along with other key goals, to revitalize national and global efforts to achieve SDG-4, Sustainable Development Goal 4 - "Quality Education", one of the 17 Sustainable Development Goals adopted by the United Nations in 2015.

In this period, The Action Plan for Digital Education 2021-2027, "Resetting education and training for the digital age" [2] is being developed at European level and aims to improve the level of digital competences of all citizens, according to DigComp, Digital Competence Framework for Citizens [3], and, in particular, of educators or trainers, according to DigCompEdu, Digital Competence Framework for Educators [4].

Digital education, also found under other expressions such as e-learning, online learning and technology-enhanced learning, involves the creative use of digital tools, technologies and infrastructure to facilitate and enhance the teaching and learning process.

Microlessons or also called minilessons or learning nuggets are short, focused lessons, usually lasting between 5 and 20 minutes, can be adapted to various learning objectives, students and environments. A microlesson can transpose a traditional, condensed and optimized content to be delivered in a short timeframe, the educational content having text, images, audio and video recordings, games. Micro-lessons can be delivered and uploaded more easily online, on different learning, video or media platforms, thus remaining available to students at any time.

Digital education and microlessons are innovative teaching and learning models, which integrates technology, flexible pedagogies and learner-centered approaches [5], succeeding in transforming and revolutionizing the traditional education system, adapting it to the new demands and challenges of today's learners. Among the newest and most innovative teaching and learning models today are: personalized learning, collaborative learning, blended learning, flipped classroom, interactive lessons, project-based learning, inquiry-based learning, game-based learning, use the design-thinking process, 3D printing, using Virtual Reality Technology, using AI in Education.

A special category of learners for whom digital education and microlessons are very suitable are adults, who are busy people, with little time available for study and a focus on practical examples being very important and effective. Therefore, educators or trainers of adult learners all the more need the necessary skills to create courses and learning materials tailored to their needs.

2. Methodology

In order to address these needs, some research has been carried out as part of the implementation of an Erasmus+ project, "Media Education for Aware Adults" (MEAA), to develop a common framework of competences needed by adult educators and trainers to effectively integrate digital tools and media literacy in their localized contexts [6]. The Digital Competences Framework for Adult Educators/Trainers, developed through the MEAA project, customises DigCompEdu, adapting the definitions of the key components of the competences needed by adult educators/trainers.

Based on the competency framework resulting from the research, some intellectual products were developed: a handbook, an online platform and a set of recommendations on the sustainability of the results obtained.

From a methodological point of view, in order to obtain each result, focus groups were initially held in all the six partner countries in the project, based on which the experts then drafted the resulting materials, which were then each subjected to a validation process.

In the following, the main results are briefly presented, which come to demonstrate, once again, at an applied level, the need and importance of using digital education and micro-lessons in the current educational context, for all learners, but especially for adults.

3. Results

Full results, both in English and in the six official languages of the partner countries, can be accessed on the project website [7], as shown in fig. 1, their main contents being summarized below.

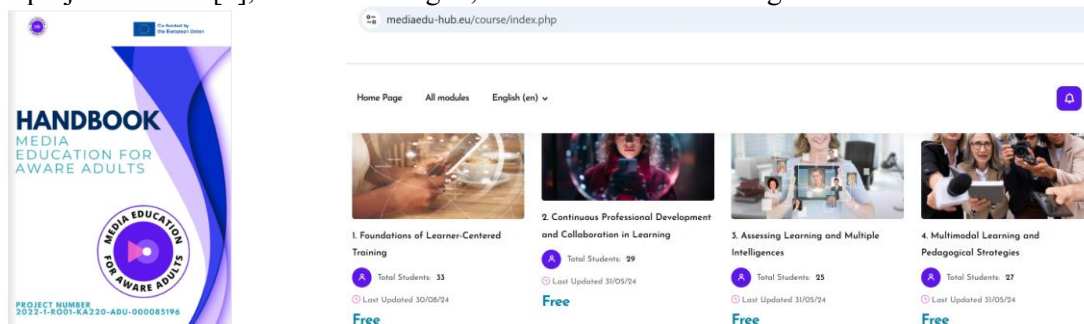


Figure 1. Images of the results on the project website and platform

3.1. Handbook - Media Education for Aware Adults

The Handbook - Media Education for Aware Adults offers a comprehensive set of materials that provides basic knowledge and practical tools to be used, from a technical and pedagogical point of view. It includes a needs analysis, and a set of training modules, along with corresponding activities and success stories from partner countries that can serve as inspiration to initiate positive changes in other countries and environments.

12 modules have been identified and developed, each with a set of dedicated activities, as follows:

- Learner-Centered Design: Designing Applied and Measurable Learning Experiences; Creating Engaging and Interactive Courses; Meeting Needs and Interests; Enhancing Career Prospects through Learning; Creating Low-Stress Learning Environments
- Results-Oriented Training: Developing Pragmatic and Results-Oriented Training; Active and Participative Learning; Aligning Training with Market Requirements; Immediate Impact and Short-Term Benefits; Facilitating Self-Directed Learning
- Personalized Learning and Growth: Personalized Learning for Adult Learners; Individualized Learning for Adult Development; Stepping Out of Comfort Zones; Building on Existing Knowledge and Experiences; Personal Development
- Creating Inclusive and Engaging Environments: Creating Inclusive Learning Environments; Fostering Creativity and Reflective Sessions; Incorporating Problem-Solving Methodologies and Challenges; Active Engagement of Adult Learners; Interactive and hands-on Learning
- Assessing Learning and Providing Feedback: Technology-Enhanced assessment; Regular Progress Consultations; Repetition for Reinforcement; Note-Taking for Enhanced Learning; Providing constructive and meaningful Feedback
- Multimodal Learning and Multiple Intelligences: Multisensory and Multiple Intelligence Approach; Experiential Learning and Practical Activities/Workshops; Connecting New Information to Existing Knowledge; Active Learning Strategies; Critical Thinking and Information Evaluation
- Pedagogical Strategies for Adult Learners: Pedagogical Alignment; Understanding Adult Learners; Adapting Teaching Strategies; Supporting Theory with Digital Tools; Active Engagement of Adult Learners
- Effective Instructional Techniques: Concrete Examples and Practical Lessons; Balancing individual, pair, and group work opportunities; Simplifying the Learning Process; Providing Personalized Learning; Engaging Learners through Storytelling and Engagement Techniques
- Technology Integration and Digital Skills: Technology Integration and Continuity; Supporting Theory with Digital Tools; Digital Literacy and Skills Development; Solving Technical Problems; Creative Use of Digital Technologies
- Digital Citizenship and Online Safety: Digital Citizenship and Responsible Technology Use; Protecting Health and Well-being; Cybersecurity and Digital Safety; Ethical and Responsible Technology Use; Digital Literacy and Online Safety
- Continuous Professional Development: Continuous Professional Development; Enhancing subject matter expertise; Continuous Learning and staying updated in the field; Infrastructure and Technical Support; Addressing Technology Barriers
- Collaboration and Communication in Learning: Collaboration and Global connections; Online Collaboration and Communication; Familiarization with Learning Management Systems (LMS); Collaboration and Communication Tools; Virtual Classrooms and Video Conferencing.

3.2. Online platform and training material on Media Education

The online platform contains a set of training materials combining different types of presentations and ICT tools, and is organized into six courses and some supplementary materials. Access to all materials on the platform is free of charge, based on online registration.

The six courses on the platform, representing part of the Handbook modules, presented in the form of learning nuggets, are:

- Foundations of Learner-Centered Training
- Personalized Learning and Inclusive Environments
- Effective Assessment and Instruction
- Multimodal Learning and Pedagogical Strategies
- Digital Literacy and Safety
- Professional Development and Collaboration.

3.3. Recommendations

Based on some of the activities carried out in the implementation of the project, like local and international focus groups, local and international Learning Teaching Training Activities and Multiplier Event, a series of recommendations for the sustainability of the results have been developed. All participants at these events appreciated the timeliness and complexity of the materials, saying that they will use them as examples of good practice and adapt them to their own needs.

4. Conclusion

The change of mindset in traditional education systems, together with the acceptance and integration of new innovative models of teaching and learning, and concomitantly with the improvement of the digital-technological competences of educators and trainers, will lead to the creation of learning environments suitable for the formation, among students and learners, of the abilities, skills and competences essential for the 21st century. This paper, by briefly presenting the results obtained from research carried out in real-life contexts, directly applied to members of the target groups to which it is addressed, confirms the urgent need for transformation, digital education and microlessons being an integral part of the wave of innovative educational models that must become, as soon as possible, common models in both formal and informal education at all levels.

This paper presents a summary of the main results obtained through the implementation of the project Erasmus+ 2022-1-RO01-KA220-ADU-000085196 – "Media Education for Aware Adults" [7].

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