Emerging Technologies for Holistic Literacy in Adult Education

D4.2 Report: Lessons Learnt from Capacity Building Labs and Peer Mentoring Programme

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LIST OF ABBREVIATIONS

Abbreviation	Description
EC	European Commission
EU	European Union
WP	Work Package
CBLs	Capacity-building labs

LIST OF PARTNERS

No	Partner	Country	Acronym
P1	EUROPEAN ASSOCIATION FOR THE EDUCATION OF ADULTS	Belgium	EAEA
P2	SVEUCILISTE ALGEBRA	Croatia	AU
P3	ALL DIGITAL AISBL	Belgium	AD
P4	KANSANVALISTUSSEURA	Finland	KVS
P5	CENTRUL PENTRU PROMOVAREA INVATARII PERMANENTE TIMISOARA ASOCIATIA	Romania	CPIP
P6	VERBAND OSTERREICHISCHER VOLKSHOCHSCHULEN	Austria	VOV
P7	NATIONAL LEARNING AND WORK INSTITUTE	United Kingdom	L&W

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EXECUTIVE SUMMARY

The ETHLAE project included a full work package to capacity-building activities designed **to support Adult Learning and Education (ALE) organisations in embedding emerging technologies into holistic literacy programmes**. Between March 2025 and November 2026, the consortium conducted nine capacity-building labs (CBLs) across multiple formats: online workshops, in-person training meetings, and internal events reaching **more than 300 participants** across six European countries.

This report synthesises lessons learned from these capacity-building activities and provides evidence of their impact on educators, practitioners, and organisational capacity for meaningful technology integration in adult education. The report is structured around the three work packages that informed capacity-building activities (WP2: Research, WP3: Toolkit Development, WP5: Piloting), highlighting key insights, participant feedback, and strategic recommendations for future capacity-building efforts.

Key Metrics:

- **Total participants reached:** +317 (target: 260; 122% achievement)
- **Activities completed:** All completed or planned (Lab #09 scheduled for October and November 2026 with the final meeting)
- **Formats:** Online interviews, online (internal or external) workshops, in-person training workshops
- **Partner organisations involved:** Algebra Bernays University, EAEA, KVS (Finish Lifelong Learning Foundation), CPIP (Center for Promoting Lifelong Learning) organising; all partners participated

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1. INTRODUCTION

1.1. Description of the deliverable

This document is the official deliverable**D4.2 Report: Lessons Learnt from Capacity Building Labs and Peer Mentoring Programme** of the **Emerging Technologies for Holistic Literacy in Adult Education - ETHLAE** project funded by the European Union's Erasmus - Partnership for Cooperation in the field of Education and Training - European NGOs programme (**Project: 101184061 — ERASMUS-EDU-2024-PCOOP-ENGO**).

1.1 Purpose of Capacity-Building Labs

The ETHLAE project identified a critical gap: while emerging technologies offer significant potential to enhance adult learning and education, many ALE practitioners and organisations lack the pedagogical frameworks, practical resources, and confidence needed to integrate these technologies meaningfully and inclusively. This gap is particularly acute when working with vulnerable adult populations, those with low literacy levels, limited digital skills, economic disadvantage, or migrant backgrounds.

Capacity-building labs were designed to:

- Build practitioner understanding of emerging technologies and their pedagogical applications
- Connect research findings to real-world practice
- Test and refine the ETHLAE Toolbox in authentic contexts
- Encourage peer-learning communities and networks
- Prepare organisations for piloting of technology-enhanced programmes

1.2 Alignment with Project Objectives

Capacity-building activities were strategically aligned with three work packages:

- **WP2 (Research on Emerging Technologies in ALE):** Early workshops on ethics and legal aspects of the use of emerging technologies in education and the role of technology in social inclusion; and interviews that gathered evidence on practices, barriers, and enablers across Europe;
- **WP3 (Toolkit Development):** Workshops that informed the creation of the toolkit resources, learning scenarios, and repository tools to practitioners
- **WP5 (Testing & Piloting):** Workshop and an in-person training meeting that supported piloting and the implementation phase, validating the work done in WP3

This alignment ensured that capacity-building was not isolated from the broader project workflow but rather embedded within research, development, and implementation phases.

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2. OVERVIEW: CAPACITY-BUILDING ACTIVITIES

2.1 Summary of all labs (online, face-to-face)

Table 1 – ETHLAE capacity-building activities

Lab	WP	Title	Format	Dates	Participants	Key focus
#01	WP2 Research	Mapping and Analysis of Practices	Online + Interview	April-May 2025	21	ET integration in education; legal frameworks
#02	WP2 Research	Scoping Contextual Needs	Online + Interview	April-May 2025	26	Current barriers and opportunities for ALE
#01 + #02	WP2 Research	Research webinar	Online open webinar	July 2025	35	Main key research findings from WP2 research
#03	WP2 Research	Ethics and Legal Aspects	In-person training	April 2025	22	EU AI Act, ethical frameworks, AI and VR in education
#04	WP3 Toolkit	Wiki/ repository development	Internal and external online workshops	June 2025	74	Repository planning, toolkit resources
#05	WP3 Toolkit	Learning scenarios Development	Internal and external online workshops	October 2026	51	Pedagogical principles, scenarios design
#06	WP2 Research	Technology & Social Inclusion	In-person training	June 2025	18	Accessibility, inclusive design, real-world practices
#07	WP5 Testing	Scenario Implementation in context	Online open webinar	Dec 2025	51	Realistic technology use in

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	and Piloting					disadvantaged contexts (e.g. detention)
#08	WP5 Testing and Piloting	Learning design & ETHLAE Scenarios	In-person training	January 2026	19	Scenario feedback and adaptation, piloting preparation
#09	*All*	*Evaluation of ETHLAE tools*	*In-person training*	*Confirmed in Nov 2026*	*21 expected*	*Final evaluation of the tools after the adaptions*
Total number of participants					*317 participants, 338 expected by Nov 2026*	

As per the application, Algebra Bernays University (ABU) was responsible and organised one in-person training (#03 with the TPM in Zagreb, Croatia) and online #01 and #02, including a public webinar disseminating the results of the project research. KVS Foundation was responsible and implemented the #04 and #05 online capacity-building sessions related to the toolkit, organising both internal and external meetings for feedback and gathering design principles. CPIP organised, as expected, one in-person training (#08 with the TPM in Timisoara, Romania) and online #07, both concerning the piloting phase of the project. EAEA organised one in-person training (#06 to contribute to the research) and confirmed the organisation of the last in-person training with the TPM in Brussels, Belgium. EAEA also supported ABU to implement the online #01 and #02 capacity-building labs, where all partners contributed by interviewing, overall, 47 participants.

Online Interviews & Webinars: 258 participants
In-person Training: 59 participants, with 21 more confirmed to join in the last CBL#09 reaching the defined KPI. All in-person training sessions include the core partners, plus other associated partners and educators/practitioners invited by each partner depending on the location of the meeting.

3. CAPACITY-BUILDING FINDINGS BY WP

3.1 WP2: Research on Emerging Technologies in Adult Education

Activities: Labs #01 Mapping and Analysis of Practices, #02 Scoping Contextual Needs, #03 Ethical and legal aspects of the use of emerging technologies in education, #06 Technology Assisted Teaching and social inclusion (analysis of accessibility and usability of tools and methods based on educators and learners needs)
Total Participants: 122, between April and July 2025

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3.1.1 Methodology & Scope

WP2 capacity-building labs were structured around research activities designed to understand:

- How emerging technologies are currently used in ALE across Europe
- What barriers and enablers exist for meaningful integration
- How practitioners perceive technology's role in adult learning
- What vulnerable adults need to engage confidently with digital tools

The research combined:

- **47 structured interviews** (21 mapping interviews + 26 contextual needs interviews)
- **1 online event** (35 participants, Algebra Bernays University, European)
- **2 in-person trainings** (40 participants, Algebra Bernays University and EAEA, organised in Croatia and Germany)
    - EAEA conference workshop on technology-assisted teaching and social inclusion (June 2025)
    - Algebra Bernays University workshop on the legal and ethical aspects of new technologies usage in education (April 2025)

3.1.2 Contributions to the WP2 Research

The Algebra Bernays University **workshop on ethical and legal aspects** of emerging technologies in education (April 2025, Croatia) was attended by all the partners and practitioners from Zagreb. The two presentations and following discussions underlined the importance of the EU AI Act and the high-risk AI requirements which are included in the educational sector. A speaker also emphasised the copyright laws and data protection. Within the education sector, learning and EdTech providers need to ensure human oversight, data governance with strong data privacy and promote AI Literacy. The second speaker focused on ethics, including an historical journey since the beginning of artificial intelligence and proposing a discussion on the current and future use, including themes like disinformation and media manipulation, AI use in multilingual environments or environmental concerns.

The EAEA **workshop on technology assisted teaching & social inclusion** (June 2025, Germany) **"**Digital pathways: Supporting literacy and assisting learning, ALE practitioners from diverse contexts'' was facilitated by EAEA and attended by EAEA members. The workshop was held in a context of declining literacy skills (PIAAC evidence) and a widening gap between technology access and digital skills capability. The *Learner Literacy Narratives: A Library of Life, Love and Loss* practice was presented as an example showing how to purposefully include emerging technologies into learning. The virtual library is a 3D interactive museum which gathers numerous learner stories with a multimedia approach (text, photos, videos). The narrative and gamification aspects are embedded throughout. After the good practice, the Learning & Work survey on digital use in the United Kingdom was presented. The research findings show 90% of adult learners use technology as part of learning and 18% use AI (up from 14%

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previous year). However, confidence in using technology varies, as it seems higher in everyday life than in formal learning. A discussion followed based on the ETHLAE premises. Some of the key insights from the participant discussion/reflection are summarised below:

- Technology can bridge literacy and digital skills when approached holistically
- Storytelling and collaborative learning can enhance engagement
- Slow-paced, supported instruction with peer help is essential
- Safe, inclusive learning environments matter more than technology sophistication
- Accessibility must be considered from the start designs

The structure interviews and the 2 in-person training contributed to the WP2 research identification of six critical findings that shaped all subsequent ETHLAE work, including the capacity-building work of the project:

Finding #1: Emerging Technologies hold promise, but are unevenly integrated

Technologies like AI, learning platforms, and data-driven tools can enhance access and personalization in adult learning. However, integration is inconsistent across countries and institutions, often hindered by poor infrastructure, lack of educator training, fragmented policies, and short-term funding.

Implications for the project and the capacity-building of educators and practitioners:

- Practitioners need realistic guidance on how to work with limited resources
- Low-tech and no-tech alternatives must be presented alongside high-tech solutions
- Infrastructure challenges are systemic and require policy-level attention

Finding #2: Digital inclusion is about more than access

Providing devices is not enough. Digital exclusion is linked to confidence, motivation, trust, and support structures. Adults from vulnerable groups face multiple intersecting barriers (digital, social, and emotional).

Implications for the project and the capacity-building of educators and practitioners:

- Educators need training in building trust, not just technical skills
- Peer support, relational teaching, and slow-paced guidance are essential
- Systemic barriers (poverty, language, discrimination) must be acknowledged alongside digital barriers

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Finding #3: Holistic literacy is critical

Digital skills are important, but learning them is most effective when embedded in real-life contexts and supported by emotional safety. Digital skills should be developed through social interaction, collaborative learning, and connection to learners' actual lives.

Implications for the project and the capacity-building of educators and practitioners:

- Educators need frameworks that go beyond "digital skills" to include emotional, social, and civic competences
- Technology should serve real-life learning goals, not be an end in itself
- Holistic literacy includes financial, health, environmental sustainability, and democratic competences and sees competences working with each other

Finding #4: Educators Need Training and Support

Many educators feel unprepared to use emerging technologies meaningfully and inclusively. There is a strong need for capacity-building in digital pedagogy, especially for working with vulnerable groups.

Implications for the project and the capacity-building of educators and practitioners:

- Provide practical, ready-to-use resources educators can adapt to their contexts
- Training must address both technical and pedagogical dimensions
- Peer learning and communities of practice are valuable support mechanisms
- Ongoing professional development is necessary given rapid technology change

Finding #5: Policy and practice must align

While national and EU policies emphasize digital transformation, implementation often lacks systemic support. Long-term impact depends on sustainable policies, cross-sector collaboration, and ethical use of emerging technologies.

Implications for the project and the capacity-building of educators and practitioners:

- Practitioners need to understand policy context and advocacy opportunities
- Capacity-building should also connect practitioners with decision-makers

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- Sustainable change requires institutional and systemic commitment, not just individual effort

Finding #6: A pedagogical and ethical lens is essential

Emerging technologies should be treated not as ends in themselves but as tools for empowerment and inclusion. Ethical, context-aware use of technology is needed to promote social cohesion and digital citizenship.

Implications for the project and the capacity-building of educators and practitioners:

- Educators need frameworks for ethical decision-making about technology
- Critical reflection on power, equity, and inclusion should be embedded in all training
- Digital citizenship and responsible technology use should be learning goals

3.1.3 Country-Specific Insights from the structure interviews

The research identified varying levels of readiness for educational technology integration across countries:

- **EU Level:** Strong alignment with ethical AI guidelines; policy frameworks exist but implementation gaps remain
- **Switzerland:** High variation in literacy and adult education provision; tech access varies by region
- **Finland:** Technology widely available in education; challenge is moving from access to meaningful, pedagogically sound integration
- **Croatia:** Heavy reliance on individual educator initiative; limited institutional and policy support for systemic change
- **Austria:** Uneven infrastructure and practices across regions; stronger in urban centres, more limited in rural areas
- **Romania:** Significant infrastructure gaps and funding discontinuity; basic skills remain priority alongside digital innovation

All this research was published in the official project website, including research on six countries, one document on the EU level and a learners stories collection featuring solely the learners interviewed.

3.2 WP3: Toolkit Development

Activities: online labs #04 Wiki development, #05 Learning scenarios development
Total Participants: 125 participants

3.2.1 Overview of WP3 Capacity-Building

WP3 capacity-building focused on introducing the ETHLAE Toolkit: a comprehensive collection of resources, learning scenarios, and pedagogical

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frameworks designed to support educators in integrating emerging technologies meaningfully. Activities included:

- Two internal KVS workshops on the repository creation and the learning scenarios design (June & October 2025)
- Two external KVS workshops on emerging technologies use in basic skills teaching (September & November 2025)

3.2.2 Toolkit resources introduced based on the feedback from the labs

The toolkit includes a repository and the 10 ready-to-adapt learning scenarios.

1. Resource Repository

- Digital tools and platforms
- Online courses and training materials
- Research articles, case studies, and best practices
- Accessibility and legal considerations

2. Learning Scenarios (10 scenarios across 5 thematic areas)

- Literacy and Numeracy: Navigating everyday tasks, Smart Money (AI budgeting)
- Personal and Interpersonal Capacities: Art for collaboration, Digital storytelling
- Digital Spaces and Communities: Navigating online platforms safely, Digital inclusion and participation
- Sustainability: Environmental learning through technology (energy and water consumption)
- Democracy and Active Engagement: Promoting civic participation, community-based learning and support through digital information days

3.2.3 KVS internal workshops with partners and associated partners

During the repository development, partners identified essential features for usability:

User-Friendly Features Requested:

- Multilingual resources where possible
- Clear, simple language; avoid jargon
- Shortcuts and visual guides
- Effective search functionality
- Limited but well-organised resources (not overwhelming quantity)

Platform Considerations:

- Simplicity and ease of navigation paramount
- Content curation and maintenance roles essential
- WordPress, Genially, Elementor, Padlet, or simple website pages are all viable

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- Visual appeal important but not at cost of functionality

Key principle emerged: The platform matters less than ensuring resources are clear, accessible, and useful in terms of pedagogy.

During the second meeting on the learning scenarios design, partners discussed the five core areas and the kind of themes to develop in each area. Each partner presented their ideas/drafts on each learning scenario, followed by a presentation from KVS Foundation on a good practice of using gamification and AI for basic skills development. To ensure learning scenarios meet educator and learner needs, pedagogical design questions were identified. Besides format decisions, as online vs face-to-face, or context of use, it was important to go deeper and reflect on the technology being used by educators only, learners, or both; how can the scenario be adapted for different learner needs and what low-tech alternatives exist to support learning. This framework ensured scenarios were designed for real-world use rather than theoretical ideals.

3.2.4 KVS external workshops with educators and educational practitioners

Workshop #1: Adopt AI as a Sparring Partner

The workshop counted 40 educators and other educational practitioners across Finland, and focused on AI, as one type of emerging technology. Participants felt positive about using AI in teaching and learning, with the majority feeling excited to try it, as they prefer to learn by doing, and others explaining they want to study the topic thoroughly first before starting using it in their programmes.

The first workshop was quite directed to the development of the toolbox, and directly influenced its creation. After a presentation by Tove Mylläri, award-winning AI specialist, Innovation Lead from the Finnish national broadcasting company (YLE), the participants share their ideas. Firstly, they discussed how AI can benefit adult education, especially for learners in vulnerable contexts, identifying the following benefits:

- Plain language translation and conversion
- Immediate feedback on writing and tasks
- Differentiated materials creation
- Visualization of complex concepts
- Language support for migrants
- Summaries and simplified content
- Personalized learning paths
- Practice opportunities without restrictions

Secondly, the participants proposed direct ideas for the toolkit. Some of the suggestions goes as follows:

- Concrete examples and step-by-step instructions
- Information on "good prompts" and prompt engineering
- Tools to make AI a study companion for learners

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- Pedagogical tips on effective AI integration
- Specific resources for speech and language support
- Case studies demonstrating real-world applications

Workshop #2: AI in Basic Skills Teaching: From Idea to Implementation

The second workshop counted 51 educators and other educational practitioners across Finland, and focused on AI for basic skills development. The workshop speaker, Vilma Kosonen, a Special Educator from the KVS Foundation, presented an example on how to use artificial intelligence to create learning materials that support immigrants in learning to read and write, highlighting the importance of storytelling and gamification as pedagogical principles. She explained the process from concept to practical classroom implementation, focusing on principles such as accessibility and multimedia alternatives. The ETHLAE project was then presented and as in the first workshop, participants were encouraged to participate with feedback on the scenarios (relevance, usefulness, practicality):

- Appreciate practical, concrete examples
- Value discussion of both possibilities and limitations
- Interest in balancing technology with traditional approaches
- Want more on managing diverse learner needs with AI tools

3.2.5 Conclusions and recommendations used in the toolkit

The development of the ETHLAE Toolkit was shaped by direct feedback from both partner organisations and educators. A critical insight emerged across all WP3 activities: the platform and specific technologies matter far less than ensuring resources are pedagogically sound, practically usable, and accessible to diverse educators. Whether housed on a padlet or a simple website, the repository's value depends on language, effective search functionality, resource quality, visual accessibility and capacity to keep updating. The learning scenarios were developed based on pedagogical design questions that ground technology uses in real learning needs: Who uses the technology? What context and learner group does it serve? What low-tech alternatives exist? This approach ensures that emerging technologies are positioned as tools serving clearly defined pedagogical purposes, not as ends in themselves. Participants consistently valued concrete, practical examples over theoretical content, and wanted guidance on balancing technology with traditional approaches.

The toolkit reflects a fundamental principle confirmed through the KVS workshops: educators are interested to use emerging technologies when they understand how the technologies serve specific learning goals for their learners. The scenarios span five holistic literacy areas (literacy and numeracy, democracy, sustainability, personal capacities, digital communities) intentionally placing learning outcomes before technology selection. Some AI applications, for example, are presented as one tool among many, valuable for specific purposes (plain language conversion, personalised practice, differentiated content creation) and requiring careful application with vulnerable populations. The toolkit emphasises that effective technology integration requires attention to emotional and relational dimensions alongside technical implementation: peer

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support, human connection, and slow-paced instruction are prerequisites for meaningful engagement, especially for adults who have experienced educational barriers.

3.4 WP5: Testing and piloting the toolbox

Activities: Lab #07 Scenario implementation in context, #08 Learning design with ET for adult learners & Learning design with ETHLAE
Total Participants: 70 participants

3.4.1 CPIP Scenario Implementation online workshop

The online workshop *"Implementing the scenario in context: Emerging technologies and the education of vulnerable adults"* gathered 51 participants from Romania (educators, prison staff, psychologists, social workers, social reintegration specialists, NGO volunteers in educational activities). The workshop focused especially on restrictive environments. It analysed the main barriers of implementation: emotional barriers (lack of confidence, fear, negative past experiences); technical barriers (lack of internet, insufficient equipment) and systemic barriers (legal restrictions); followed by what are the key pedagogical principles for the scenarios testing: simplicity, practical relevance, micro-exercises and quick successes, emotional support, and adapted pacing.

Practical examples were explored with participants, such as offline video materials, simplified audio exercises, mobile phone apps, and AI-generated visual aids. A particular case study was discussed in plenary: a vulnerable adult with low literacy and tech fear. How can technology still support learning for this person? Based on the presentation and participants feedback in different moments, the key outcomes can be summarised as follows:

- Participants increased their perception of emerging technologies as adaptable pedagogical tools rather than ends in themselves.
- Honesty about systemic limitations while maintaining optimism: participants recognised limitations, but also worked and discussed concrete solutions for restrictive environments.
- Participants recommended clarity and contextualisation of language (non-technical, accessible) and the need for practical nature of examples/exercises.

3.4.2 CPIP in-person capacity-building

Capacity-lab #08 Learning design with ET for adult learners & Learning design with ETHLA served as a bridge between toolkit development (WP3) and piloting (WP5). It supported partner organisations to validate the toolkit developed and develop ideas for testing and piloting. The lab was held in interactive formats, such as world café rotating discussions and plenary discussion with 19 participants (educators, psychologists, organisation representatives from Romania and partner countries). The partners had the chance to pitch their learning scenarios and discuss with educators and educational professionals how to better pilot them with the target groups. The lab was also a way to build

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capacity for sustained technology integration of educators in Romania, particularly in restrictive environments where some of the participants work.

The lab employed a world café methodology with 4 rotating discussion tables, each addressing a critical dimension of technology integration: access & digital inclusion, educator capacity & support, ethics, sustainability & impact, and emerging technologies in practice. The themes were later discussed in plenary. The following table highlights the main themes and ideas per dimension:

Access & digital inclusion	• Infrastructure gaps are real and systemic; thus the expectations of use must be realistic • Trust and confidence matter more than device access • Peer support and human connection are essential • Inclusive design must be considered from the start, not as an afterthought
Educator capacity & support	• Time and resources for professional development are currently limited. Educators need more training offers • Peer learning and communities of practice are valuable • Ongoing support is more effective than one-off training • Organisational policies and structures must change if we want to enable technology integration • Recognition and validation of educators' evolving roles is important
Ethics, sustainability & impact	• Ethical frameworks must be embedded in design and decision-making • Data privacy and learner protection require attention • Sustainability requires adequate funding, policy support, and organisational commitment • Measuring impact goes beyond completion rates to include learner agency and confidence • Sometimes the most ethical or appropriate choice is to not use technology
Emerging technologies in practice	• Technology should serve learning goals, not vice versa • Clear learning purpose must justify technology use • Educators need frameworks for decision-making about technology integration • Context and learner needs, not technology availability, should drive decisions • Low-tech solutions can be more effective than high-tech ones in some contexts

3.4.3 Conclusions and recommendations for the testing and piloting

The activities showed the importance of learner agency, ethical use of technology, and the need for scenario adaptation within the piloting. Learner agency must be embedded in each pilot activity design: use technology or alternative approaches, control engagement pace, and maintain voice in what and how they learn. Ethical frameworks must be explicit and practical: educators

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need guidance on data privacy protection and in ensuring accessibility, and educators appreciate the repository resources and reading/information section of the learning scenarios, with concrete materials to research/experiment before implementing the exercises with learners. Most critically, adaptation is key. Educators should be encouraged to adapt the scenarios to the context and needs of their target groups. Educators need to understand that scenarios are starting points for thoughtful adaptation to their specific learner contexts, not prescriptive templates to be followed exactly. This requires shifting mindsets that emphasises learner-centredness. And mentoring relationships, peer learning communities, and regular feedback loops are essential during the piloting phase, confirming the project application option to include a peer mentoring programme (explain in the next section).

4. PEER MENTORING PROGRAMME

As the third component of WP4's capacity-building schema, the consortium implemented a peer mentoring programme running in parallel with WP5 piloting activities (March-July 2026). The programme paired mentors in the project (firstly partner representatives, and then also the educators who pilot as multipliers) with educators and institutional teams to support learning design, scenario adaptation, and implementation of ETHLAE learning scenarios in pilot settings. Mentoring took multiple forms: individual 1-on-1 meetings between educators, small group discussions among educators, and team presentations to introduce the toolkit or specific tools/processes to broader staff groups. This flexible approach recognised that different organisations and individuals had different readiness levels and learning needs as they prepared for and undertook piloting.

KVS (Finland) established mentoring relationships focused on practical toolkit use and scenario testing. Mentors introduced educators to Genially and Canva for creating presentations they could use in ETHLAE pilot courses. Experienced educators were interviewed about their experiences testing specific scenarios (such as "Navigating everyday texts"), providing real-time feedback that informed adaptation. KVS also conducted team demonstrations, introducing 15 colleagues to the Genially programme and full ETHLAE toolkit, and facilitated peer discussion among two educators planning the second Finnish pilot course to align their understanding of learner needs and skills. As a colleague will be working further in emerging technologies in education, KVS organised a meeting to explain and connect ETHLAE resources to broader organisational initiatives and future projects, exploring tools used and how the toolkit could support educators in media literacy.

ABU (Croatia) implemented two focused mentoring sessions. In the first session, a mentor informed staff about the ETHLAE toolkit and MOOC, presenting their main purpose, content, and potential use in teaching and training activities (approximately 7 people). The discussion centred on how these resources could support educators in integrating digital tools and inclusive practices into their work. Following the workshop, the partner conducted a structured reflection meeting where participants discussed how the session unfolded, assessed engagement levels, and identified key observations related to staff needs and

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responses. This reflection process also identified strengths of the implementation and areas for improvement, particularly regarding time allocation and adaptation to different levels of digital confidence.

VOV (Austria) and the Vienna-based VHS organisations (VHS Wien, VHS Favoriten, VHS Floridsdorf) implemented a phased mentoring programme throughout the piloting. The process began with an initial preparatory meeting where educators introduced the ETHLAE project, scenarios, and VHS Wien's role as an associated partner, handing over scenarios to educators for selection and adaptation. Collaborative scenario selection and adaptation meetings occurred, where educators presented the project and scenarios to teaching teams at VHS Favoriten and VHS Floridsdorf, enabling teams to collectively select learner groups and specific scenarios based on their context. The cycle concluded with a reflection meeting in July where educators discussed implementation experiences, identified what worked, and shared insights from their pilots. This systematic, phased approach ensured that all three VHS organisations developed institutional readiness, clarity on procedures, collaborative engagement in decision-making, and structured learning from implementation, creating also organisational capacity for sustained technology integration outside the project.

Key insights from mentoring

The peer mentoring activities generated important insights for educators preparing to pilot:

- Training is valued: hands-on mentoring on platforms like genially and canva increased educator confidence and enabled them to envision concrete applications in their teaching.
- Scenario adaptation requires dialogue: mentoring conversations where educators discussed context-specific needs led to more thoughtful, feasible adaptations than asking educators to adapt in isolation.
- Institutional buy-in develops through engagement: team presentations and departmental meetings helped shift mentality from "one educator trying something new" to "our institution is implementing ETHLAE", which creates support for piloting.
- Reflection cycles strengthen learning: post-pilot reflection meetings allow educators to synthesise experiences, identify what worked, recognise areas for improvement, and share insights with peer.

The peer mentoring programme demonstrated that sustained, contextualised support significantly improves educators' readiness and confidence for meaningful technology integration in real teaching contexts.

5. CROSS-CUTTING THEMES & LESSONS LEARNED

5.1 Insights across all capacity-building activities

Across all eight completed capacity-building labs, several insights emerged that offer guidance for sustainable technology integration in adult education. They

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were implemented within the ETHLAE project but can be reflected in broader initiatives and organisations.

#01 insight: Start with learning needs, not the technology itself

Evidence across labs:

- Lab #08 discussions: *"The goal isn't to delay the digital future or reject innovation, but to ensure technology serves educational goals rather than dictating them".*
- KVS webinars: Participants valued practical examples that showed real-world learning problems first, that can be solved by technology

Lesson learned: Educators are more likely to adopt technologies meaningfully when they first start with a clear learning challenge and then identify whether technology could help address it.

Implication for practice: The materials need to include technology with clear goals, introducing how platforms can support learning, not simply identify and present technological tools.

#02 insight: Digital inclusion requires more than access

Evidence across labs:

- WP2 finding: Providing devices is not enough. Digital exclusion is linked to confidence, motivation, trust, and support structures (Learn quote: *"I don't want to click on something and lose money or send the wrong document. Who can help me if I get it wrong?"*)
- Lab #03 (Ethics and legal aspects): Emphasised need for safe spaces and human support alongside technology
- Lab #07 and #08: Access discussions revealed systemic barriers beyond infrastructure (language, discrimination, economic)

Lesson learned: Technology access and digital skills are necessary but insufficient. Vulnerable adults need psychological safety, peer support, meaningful relevance, and ongoing human help.

Implication for practice: The materials should consider infrastructure (including alternative traditional tools), but give the educator space to work emotional competences and adapt the exercises with pedagogical tools.

#03 insight: Educators need time and support, not just technical skills

Evidence across labs:

- WP2 finding: *"We don't have enough pedagogical resources (...) we're good at improvising, but that's not a sustainable strategy"*.
- KVS webinars: Participants asked for "pedagogical tips" not just tool demonstrations

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- Lab #08: Educators wanted guidance on decision-making about technology, not instructions on specific apps

Lesson learned: Technical training is necessary but insufficient. Educators need materials for pedagogical decision-making about technology and ethical reflection on technology use.

Implication for practice: Repositories should include a range of materials that also focus on ethical and legal aspects of technology, and not only on tools explanation.

#04 insight: Holistic literacy requires holistic approaches

Evidence across labs:

- Lab #06: Storytelling and collaboration were highlighted as engagement strategies
- Lab #08: *"If you are not able to properly read or write, you cannot use emerging technology where you need to read and understand how to use it".*
- Learning Scenarios: All 10 scenarios embed holistic literacy dimensions (numeracy, civic, health, environmental awareness) alongside digital skills

Lesson learned: Technology integration in adult education must support holistic development: digital literacy and confidence, citizenship, financial capability, health awareness, sustainable thinking, and social participation, among others.

Implication for practice: Learning scenarios must explicitly connect digital skills to holistic competences (civic, health, environmental) and should demonstrate how technology serves broader literacy development.

#05 insight: Practical and adaptable resources are essential

Evidence Across Labs:

- KVS webinars: Participants requested "concrete examples", "step-by-step instructions" and "case studies"
- Lab #07 CPIP feedback: "Clarity and contextualisation of language" and "practical nature of examples"
- Repository planning meeting: "Resources must be clear, simple, easy to find"

Lesson learned: Educators are more likely to use resources that are practical, ready-to-adapt, and demonstrated through real examples.

Implication for practice: Toolkit resources should prioritise utility over comprehensiveness; curate smaller, high-quality resource collections rather than overwhelming repositories.

#06 insight: Trust and relational teaching is what matter most

Evidence Across Labs:

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- WP2 stakeholder quote: *"Digital tools can't fix a lack of trust. What learners need first is a safe space, then they can start experimenting".*
- Lab #08: Safety, emotional support, and peer connection were identified as foundational principles
- Learner voice from research: *"If someone could just sit with me and show me, not too fast, I think I could do it".*

Lesson learned: Technology integration success depends fundamentally on relational factors: educators' empathy, learner trust, peer support, and psychological safety.

Implication for practice: Materials can propose exercises, but the success of the scenarios implementation depends on the educator, on the trust and strategies to motivate adult learners and on the support and infrastructure the educator holds.

#07 insight: Low-tech and no-tech alternatives are necessary in first stages

Evidence Across Labs:

- Labs #04 and #05: Solutions proposed should work across different resource levels and include low-tech and no-tech alternatives
- Lab #07 CPIP: Examples included *"offline video materials, simplified audio exercises, functional mobile phone applications, printed visual aids generated with AI"*

Lesson learned: Not all learning goals require high-tech solutions. Educators need permission and frameworks to choose appropriately, including low-tech options.

Implication for practice: Scenarios should include low-tech and no-tech alternatives. The toolkit should celebrate and highlight effective low-tech solutions alongside high-tech options.

#08 insight: Context matters enormously: one size doesn't fit all

Evidence Across Labs:

- WP2 country analysis: Significant variation in readiness, infrastructure, and needs across six countries
- Lab #08: Educators provided feedback coming from diverse contexts: prisons, special education, STEM schools, second-chance programmes

Lesson learned: Effective materials acknowledge local context and help educators adapt rather than adopt prescriptively.

Implication for practice: Toolkit should be design-oriented for adaptation rather than prescriptive. Every scenario should include examples/questions on how to adapt the exercise to different contexts (e.g. learners' level of readiness to use technology).

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6. CONCLUSIONS & IMPACT

The eight capacity-building labs completed in WP4 reached 317 practitioners across European countries, exceeding participation targets. More importantly, these activities generated rich insights into what practitioners need to integrate emerging technologies meaningfully in adult education serving vulnerable populations. The capacity-building work confirmed the ETHLAE project's central thesis: the gap in adult education is not primarily about lack of technologies, but about lack of pedagogical frameworks, practical resources, and supportive systems to use technologies ethically and effectively. Practitioners across Europe are not resistant to emerging technologies. They are eager to understand them, but they need:

- Clarity on learning purpose before selecting technologies
- Identification of technologies who are compliant and safe for education
- Pedagogical frameworks that guide decision-making
- Practical, adapted resources they can use in their contexts
- Acknowledgment of barriers (infrastructure, resources, learner specific needs) and realistic solutions
- Community and peer support for ongoing learning
- Recognition that holistic literacy requires more than digital skills
- Assurance that low-tech options are respected alongside high-tech
- Time and support to adapt and experiment rather than implement prescriptively
- Ethical frameworks for responsible technology use
- Policy and institutional support for sustained change

Capacity-building activities demonstrated impact in multiple ways. Practitioners gained a deeper understanding of emerging technologies' potential and limitations. They gained access to practical scenarios and resources, while contributing to their design and development. Peer networks were formed within organisations and contexts and small communities began forming in and around partner organisations. Interest in continued learning and collaboration was evident in all the capacity-building sessions.

The final capacity-building activity (Lab #09, scheduled for November 18–19, 2026 in Brussels) will focus on evaluating the complete ETHLAE Toolbox and pilot results and define pathways for continued collaboration. Beyond the formal project timeline, the foundation built through capacity-building activities positions the ETHLAE community to continue:

- Sharing and refining learning scenarios
- Supporting educators through peer networks
- Advocating for policy and funding alignment
- Expanding the resource repository with new tools and practices
- Scaling effective approaches to broader practitioner communities

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