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# METHODOLOGY

for mixed groups based on  
intergenerational relationships

**Game-based digital learning. Playing to teach**

**ERASMUS+2023-ES02-KA210-ADU-000174J66**



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# 1. INTRODUCTION

This section of the Handbook describes the fundamentals of the methodology created within the project "Games4You", which uses a game approach to facilitate learning in an environment with **mixed age groups** – with young people but also older people. The main idea is to develop **an intergenerational educational environment** in which participants learn from one another through experience, cooperation, and games based on real-life circumstances with the use of digital technology.

## Target group

The methodology targets **two main age groups**:

- **Young people** between 25 - 40, digitally confident, with an interest in innovation and technology.
- **Adult participants**, aged 50+, interested in discovering new ways of learning, social activity, digital inclusion or some combination of the three.

The focus is to develop **participative enriching interactions**, in which each group offers knowledge and experience, and learns from each other.

## Content and structure of the methodology

The methodology combines:

- **Digital and board games** with educational purpose.
- **Role and scenario simulations** of real European and social topics.
- **Interactive exercises** aimed at creating digital literacy, critical thinking, and interpersonal skills.
- **Trainings and discussions** aimed principally, but not exclusively, at creating empathy, collaboration, and cultural awareness.

## Key aims

The methodology is designed to:

- Develop **an original and accessible approach to learning.**
- **Foster intergenerational dialogue** and engagement as well as experiences.
- **Build the digital and communication skills** of participants.
- **Encourage active citizenship and solidarity** in a playful and gameful way.

## Benefits of participation

Through game learning activities, participants can:

- Develop **teamwork skills** across ages or generations.
- Develop **mutual respect and trust** between generations.
- **Develop their motivation for learning** through engagement and experience.
- **Overcome social exclusion**, including for older individuals.
- Build **a sustainable and supportive learning community** where all participants feel valued and useful.

The methodology builds **skills** and builds **relationships**, it builds a bridge between generations, builds teamwork and builds belonging.

The young participants build new skills in explaining and mentoring, while the older participants build skills and confidence in engaging in the evolving digital world.

## 2. IMPORTANCE OF USING THE METHODOLOGY FOR EDUCATORS WHO WORK WITH MIXED GROUPS BASED ON INTERGENERATIONAL RELATIONSHIPS

Different ages, including younger and older participants, will share different lived experiences, ways of learning, digital competencies, and motivations to use the electronic toolkit. The methodology needs to represent those differences, if we want all participants to receive equal access, actively participate and sustain all their learning. Effectively adapting the methodology for the electronic toolkit, while working with a mixed age cohort, takes **sound planning** with **step-by-step approaches**, and flexibility to allow for the speed and needs of the participants. The role of the teacher is as a facilitator who not only teaches but also creates spaces for collaboration and engaging in shared learning experiences.

In the beginning, it is essential that the training processes begin with **activities to get to know and to build trust** that will enable substantial generation gaps to be overcome. After, the electronic toolkit is to be presented, through **small, connective processes** that are rooted in game elements, simulations and real-life instances. Each member "brings to the table" their strengths: youth – intelligent digital technological appreciation; adults – life and professional social capital. **Working in pairs or small teams** with age-diverse groups is important for efficiency.

Also important promotion of buying-in from all members will be identifiable in **accessible instruction, some visual resources and available support**. Inclusion of regular **feedback** from all, **self-assessment and inter-generational assessment** will enhance the utility of what you have learnt, and the long-term retention.

The method appeals to everyone and reinforces active learning, preparing participants for real-life situations where they will live and work together in a mutually shared environment.



In order for the methodology to be effective in an electronic-like context, it must evolve or become embedded into the e-toolkit by being applied in these ways:

- **Intuitive design and customization:** The methodology can steer the development of adaptable interfaces that respond to variable needs (e.g. larger font and clearer navigation for older users, dynamic visual stimuli for younger users).
- **Built-in gamified elements:** Development of electronic scenarios and exercises with game elements (badges, levels, challenges, points) that are authentic representations of real cases, and motivate achievement, recognition and progression.
- **Collaboration and knowledge sharing functionalities:** The methodology supports collaborative learning. The e-toolkit may include forums, chat rooms, and group tasks, where participants from different generations engage in common tasks to share experiences and skills.
- **Indirect opportunities for self-reflection and feedback:** The methodology signals that reflection is key. The toolkit may include opportunities for self-assessment diaries, automated self-feedback, and surveys measuring progress and attitudes.
- **Appropriate accessibility and value:** The methodology places priority on ensuring content can be received across devices, learning can occur at individual processes, which is often challenging when working with adult learners with variable approaches to perception and engagement.

## 2.1. HOW THE METHODOLOGY HELPS TO WORK WITH MIXED AGE GROUPS?

Using a gamified approach supported by an electronic toolkit results in:

- **Improved motivation and participation** – using dynamic but straightforward gamification mechanics.

- **Improved understanding of learning content** – using active, experiential learning techniques.
- **Improved connection between participants** – with intergenerational collaboration.
- **Improved sustainability of impact** – by encouraging the long-term application of learning content to real life.

## 2.2. HOW TO USE THE E-TOOLKIT EFFECTIVELY IN EDUCATION AND MAXIMIZE LEARNING OUTCOMES?

### Impact on trainers

- **Improved teaching effectiveness:** The methodology offers structured tools and approaches that trainers can use to create more engaging lessons: this will ease their workload and improve efficiency.
- **Improved competencies with mixed groups:** Trainers will have developed sensitivity and approaches to collaborating with varying actors; they will be able to more readily create inclusive spaces and address generational gaps.
- **Increased digital and methodological competence:** By using digital tools and gamification paradigms, educators can enhance their skills in digital approaches and innovative methodologies in education.

### Effects on learners

- **Increased levels of motivation and commitment:** Game elements inspire and excite interest and activity, especially for regular or abstract topics. This applies to both the younger generation who just want something that is interactive, and the older generation if the content has value or is applicable.



- **Increased confidence and inclusion:** Methodology allows for all participants to be included – younger participants take on more leadership roles, older participants share experiences. This all helps to promote confidence and positive team-building resource.
- **Improved acquisition of knowledge:** Gamifying highlights cognitive processes through emotional involvement, competition, and collaboration. These tools allow participants to retrieve, comprehend, and apply what they have learned more effectively.

### Effects on the learning process

- **More dynamism and interactivity:** Learning is a very flexible, fun, interactive process, either from a lecture format or experiential learning, which is a better way to serve adult learners.
- **Better collaboration and exchange of knowledge:** The methodology builds an environment that fosters project work, dialogue, games, etc. – these enhance intergenerational exchange – this is how relationships are strengthened and bridges are built between knowledge, experience, and points of view.
- **Personalized and inclusive learning:** The methodological approach and digital kit mean that the training can become personalized – each participant can have their own individual pace, and the methodology responds to the specific needs of the group.

## 3. EXPECTED IMPACT OF THE METHODOLOGY

Utilising the developed methodology can lead to **a multi-layered positive impact** both for the participants in the training and for the educational potential in its broadest sense. The most significant impact is to establish **an inclusive, motivational and meaningful educational dynamic**, where the participants from different generations actively **learn, play, and grow** in the same social learning environment rather than simply cohabiting a space.

### At the individual level, the methodology:

- **Develops the digital literacy** of adult participants via non-formal and experiential learning clearly contextualized with support from younger participants.
- **Develops the social and communication skills** of young people working with people from different generations.
- Fosters **self-confidence, empathy, as well as respect**, especially in participants who typically often feel insecure when being in a digital environment.
- Stimulates **motivation for lifelong learning**.

### At group and community level it is expected to:

- Create **a sustainable educational culture** based on cooperation and a sharing of knowledge and values.
- Reduce **generational distance** through discussions as well as common activities.
- Promote and increase **the social engagement and activities** of participants in the local community.
- Provide an example of **innovative educational practices** that can be adapted in other contexts, such as at schools, in NGOs, or in training centres.

Overall, the methodology is of value as a method for creating **a community of trainers and participants** who do not just absorb and receive information, but also **develop meaningful relationships** that lead to social cohesion, solidarity, and intercultural awareness – the values on which modern Europe is founded.

## 4. HOW THE MATERIAL MEETS THE SPECIFIC NEEDS AND INTERESTS OF MIXED TARGET GROUP?

The mixed age profile of young people (25 – 40 years) and adult participants (50+ years) has **different but complementary needs and interests**, and will require an adapted and balanced approach to the different aspects of the educational practice.

### 4.1. UNIQUE NEEDS & CHALLENGES

#### Young people (25 – 40 years):

- **Needs:** interactivity, quick feedback, visual content, and technology-centred learning.
- **Challenges:** limited period of concentration; limited patience for slower learners; meaning & recognition.

#### Adult participants (50+ years):

- **Needs:** relaxed pace; clear instructions; distinctive user interfaces; social support (more emphasis on delivery and less on learning).
- **Challenges:** lower confidence in digital skills; fear of mistakes; definitely less previous experience with technology.

#### The role of the electronic toolkit:

The tools will help with the educational practice by;

- The modular structure allows you to work at your own pace.
- Digital resources with visual indicators for participants with different digital competencies.

- Interactive exercises and simulations that encourage active participation of young people, but are accessible enough for older people.
- Activities that are intergenerationally based and involve joint work and mutual learning – young people support adults with technology, whereas adults support young people with life experience.

## 4.2. GAMIFICATION, DIGITAL TOOLS AND PERSONALIZATION

The application of **gamified elements** (rewarding, levelled, challenge, story) inspires **engagement and motivation to learn**.

**Digital tools** (interactive maps, simulations and quizzes) help tailor tasks to the capacity and preferences of the participant.

**Personalizing the learning opportunities** through choosing a role, mission or case study gives a sense of control and ownership; this is important for both target audiences.

## 5. ADVANTAGES AND BENEFITS OF USING THE E-TOOLKIT FOR TEACHERS WORKING WITH MIXED AGE GROUPS

Working with mixed age groups, meaning participants from different generations, is both challenging and exciting for educators. The electronic toolkit that has been developed as part of the project “Games4You – Digital Game-Based Learning” provides **innovative, structured and adaptable support** to help facilitate the teaching and enhance the learning experience.

### Main benefits:

- **Flexibility and personalization:** The toolkit offers teachers the ability to adapt the content, pacing and format of the sessions to the needs, levels and interests of participants across age groups. This assists with creating an inclusive and respectful learning environment.

- **Simplified group management:** SOL is supported by ready-made scenarios/game templates/digital assets that help the teacher to arrange other types of activities, which could be individuals, groups or intergenerational groups. The teacher would not need to prepare those activities when using the SOL framework.
- **Engagement and motivation:** Gamified modules and a gaming approach attract the interest of young participants, and the social dimension and collaborative learning invigorate activity in older participants. This has a positive effect on wanting to participate /engagement overall, as well as satisfaction with the activity.
- **Enhancement of professional competence:** Working with SOL will assist teachers with developing those skills for facilitating intergenerational dialogue, dealing with diversity, and using technology in training.
- **Endorsement of innovative practice:** The toolkit represents a structured way to access modern methods involving gamification, active learning, and collaborations, which enables other practices to be introduced to a more traditional learning environment.

## 6. HOW TO USE THE E-TOOLKIT FOR EDUCATORS WHO WORK WITH MIXED AGE GROUPS IN THE MOST EFFICIENT WAY?

When used in intergenerational learning, digital tools provide teachers with an opportunity to personalize the learning experience, considering age-relevance.

However, for learning to be effective, we need to engage methods that support active learning, collaboration, and social skill development, while using technology in a way that is accessible and motivating for all ages.

Gamification is one of the most effective factors for creating enjoyable interactive educational situations that facilitate inclusion for all ages.

## 6.1. CASE STUDIES

### **Gamification for active learning and collaboration**

In one learning project at school with multiple age groups (students and adults), teachers developed an online game uniting participants into teams with varying age ranges. Each team was tasked with solving a set of sustainability and ecology problems, using electronic tools in the form of games, simulations, and quizzes. Older individuals were more aligned with real-life contexts and available actions, while youth often were more fluent in the digital aspect, proving to be successful in terms of intergenerational cooperation.

### **Gamification to develop digital skills and confidence**

In one course targeting adult learners and their digital development, educators were able to use gamification to push participants to engage with learning new technologies (e.g. social media, electronic collaborative platforms).

Mission and rewards games were employed to engage the group and entice adults to play with learning concepts through action. The youth in the group had a mentoring function for older participants in that they demonstrate specific digital techniques and support confidence building through team games.

### **Intergenerational dialogues through role-playing games and simulations**

Role-playing games and simulations are extremely useful to enable intergenerational dialogue. Trainers can develop simulations enabling participants to take on roles (scientist, entrepreneur, public figure) to discuss current social or political issues linked to Europe, democracy and sustainable development.

The gamification here refers to the simulations that provide players with platforms to earn points, make decisions, and receive feedback, resulting in stimulation of creativity and problem-solving in a real-world space.



## 6.2. RESEARCH

### **NMC Horizon Report (2016)**

Gamification in education is valuable in supporting and encouraging motivation and engagement, especially among older and younger adults. Adult learners are more motivated and engaged when game elements, goals and rewards are implemented when learning.

### **Results from a study by Johnson et al. (2020)**

A study of 600 adult participants in mixed age groups learning about gamification using an digital platform. The results showed the following:

- 82% said they were more engaged when learning via game mechanisms.
- 67% of older learners had increased confidence with technology.
- There are strong relations between gamification and internal motivation to learn.

### **European Commission study (2022): "Adult Learning in the Digital Age"**

- Their recommendations supported the use of adaptive electronic platforms and gamification, specifically when working with mixed groups of learners.
- They also acknowledged that using combinations (gamification + self-reflection + collaboration) could provide greater sustainability in learning.

## 6.3. BEST PRACTICES

### **Project "Adults and Young for a Green Future" (Spain)**

Students and adult participants work together to solve environmental cases using Kahoot! and Quizlet. Young people show off their digital skills, and the adults share their real-life experiences of sustainable development.

### **Senior Tech Training Program (USA)**

Senior Tech Training projects in the USA include programs that playfully engage older adults in learning digital skills through game elements. This includes the use of mission games, where participants earn points by completing specific objectives – an email message, a social media account, and so on.

### **Role Play for Europe project (Spain)**

Using Padlet and Google Classroom, students and older people collaborate on role-playing games based on significant social and political themes in Europe (e.g. climate change, democracy).

Educators encourage students and older people to take on different personalities and discuss how every generation engages with the issues. creates critical thinking and intergenerational communication.

### **European project "Digital Inclusion for All"**

In this project, educators use Google Classroom and Edmodo for assignment purposes on the inclusion of older people into the digital world.

Participants of all different ages learn together how to use digital platforms for personal and work purposes. and are creating positive intergenerational working together.

### **Interactive learning projects at the "International School of Geneva"**

In this case study, students and adult participants utilize the Padlet to co-construct an online whiteboard where topics such as social inclusion and global issues are explored.

Gamification elements are used to ignite learning from activity, and the project showed that adult participants who had little experience with technology could enjoy, engage and learn in digital learning spaces.

### **Silver Gamers Project (Germany)**

- Target group: 50+ learners mixed with young IT professionals.
- A gamified digital literacy course was used that included missions and "digital quests".
- Result: Older adult participants increased their confidence and started to use mobile applications, whereas younger adult participants developed and enhanced their facilitation and intercultural communication skills.

### **"Generations Working Together" (Scotland)**

A platform to educate adults of different generations about sustainability and social skills.

- Utilized virtual missions, badges and shared electronic diaries.
- Result: interpersonal communication, critical thinking and sense of community improved.

These examples show how the use of digital tools and gamification can successfully enhance learning experiences with mixed ages. They provide opportunities for better interaction and collaborative learning experiences, and the learning experiences that develop knowledge and skills, useful for both young and adult learners.

## **7. RECOMMENDED DIGITAL TOOLS AND PLATFORMS: EDUCATOR TIPS FOR IMPLEMENTATION**

The globalization of education gives educators many possibilities to create interactive, engaging and personalized educational materials. If the educator works with mixed age groups the correct digital tools can enable learning, encourage activity and enhance intergenerational exchanges.

## 7.1. OVERVIEW OF PLATFORMS, USEFUL ADDITIONAL TOOLS WITH EXAMPLES

### Kahoot!

- **What it is:** A platform to create quizzes and games that is extremely popular with teachers and students. It can be done instantly or be timed. This is suitable for checking students' knowledge quickly and activating groups.
- **Example:** You could create a Kahoot quiz about generation gaps or about European history by creating questions that will suit a range of ages.

### Quizlet

- **What it is:** A platform to create learning cards (flashcards) to use learning and revisit information.
- **Example:** Make maps and use the terms or facts about significant events in European history to test whether both younger and older participants study together.

### Padlet

- **What it is:** An interactive platform to create digital whiteboards on which participants can post texts, images, videos, and other resources.
- **Example:** Use Padlet to collaboratively build a project focused on "Intergenerational Relations in Europe", where all participants contribute their ideas.

### Google Classroom

- **What it is:** A platform for organizing and facilitating the flow of learning materials, assignments, and feedback between teachers and students. It allows teachers to create personalized assignments and assessments.

- **Example:** Assigned projects and research based on a topic that lends itself to an intergenerational approach, such as comparing social movements from different decades.

## **Edmodo**

- **What it is:** An online environment for students and teachers to interact, create assignments, generate assessments, and have group discussions.
- **Example:** Use Edmodo collaboratively, where students and adults have meaningful and purposeful discussions about topics and share their viewpoints in a safe online environment.

## **7.2. TIPS AND GUIDELINES FOR EDUCATORS ON HOW TO IMPLEMENT THE TOOLS**

### **Use gamification to promote increase appeal**

Kahoot! and Quizlet are excellent digital platforms to create engaging games and quizzes that motivate participants to learn by actively engaging with the material. Remember to include games that cover a range of mechanics or separate games and quizzes that focus on different aspects of the materials to allow different interests, learning styles and enable all participants to engage at their comfortable level.

### **Create personalized and customized assignments**

Use Google Classroom or Edmodo to customize assignments and quizzes for different age groups, allowing you to provide assorted information and web resources for younger participants, or adjust the degree of assignments based on the level of technology sophistication for adult participants.

### **Foster collaboration between generations**

Utilize Padlet to co-create ideas or solutions on a specific topic. This way, both youth and adult participants will add to the project, exchanging knowledge and experiences in a safe, online environment.

## **Nurture feedback and skill checking**

Leverage tools like Google Classroom or Edmodo to build consistency with feedback that educators can analyze to assess their students' work in order to help them improve their performance.

Consistent quizzes or quizzes made with Kahoot! can be utilized for real-time performance assessments.

## **Orient participants with the tools and their use**

Especially with older participants who may lack confidence in using technology, it is vital to start with ease and intuitiveness in the platforms.

Provide short but informative training or orientation to give participants a good instructional base for using the platforms.

## **Incorporate rewards and motivation**

Rewarding participants with points, rewards, and achievement systems by using tools such as Kahoot! will encourage them to continue learning and be engaged in the learning process.

Provide fair and motivating rewards that acknowledge all age groups.

## **Summary**

Digital platforms like Kahoot!, Quizlet, Padlet, Google Classroom, and Edmodo provide educators with powerful and versatile tools for creating interesting and exciting educational environments which promote educational cooperation and active learning across generations.

Educators can create more meaningful as well as more powerful educational experiences through thoughtful adoption and adaptation of these new tools and by adapting the methodology to be suitable for the needs of the intended target group.



## 8. TEACHING STRATEGIES ADAPTED TO THE COGNITIVE, EMOTIONAL, AND TECHNOLOGICAL NEEDS OF EACH GROUP

When adapting for mixed age groups, it is important to accommodate gamification, considering the differences in each participant's cognitive, emotional, and technological needs. The goal is to find the right balance which is suitable for both youth and elders, while promoting intergenerational interaction.

### **Cognitive need**

Gamification tasks should be structured cognisant of differences in cognitive ability levels. For youth participants, cognitive challenges can be offered, especially to stimulate logical thinking, criticism, and innovation. In contrast, for adult participants, it is necessary to provide the opportunity to use tasks at their own rate and not become fatigued. During instruction, it is important to work on linking new information with past learnt experience that will foster the learning process and knowledge transfer.

### **Emotional needs**

Gamification should establish a safe and motivating learning context. Young learners are often stimulated by competition and achievements, whereas older learners are generally less inclined or motivated by those same techniques and more inclined towards a collaborative approach. Emotional support is important; for example, to provide positive feedback and recognition of each individual success, irrespective of age. Points or virtual medals may promote excitement among both younger and older learners and can promote a sense of belonging and/or sense of success.

### **Technology needs**

Different generations can have varied technological abilities. For gamification to be successful, there will need to be adequate training on the relevant platform for all participants.

Younger generations tend to have a good sense of technological ability, but older generations may need further support and explanation regarding implementing digital platforms. It is therefore important to have a simple and intuitive use of the tools, and consider additional training support if required.

### **Intergenerational collaboration**

Gamification may be used to promote intergenerational interactions through collaborative tasks and competition. As an example, younger and older learners can be formed into mixed teams to collaborate on virtual projects or work to solve puzzles or tasks, which can help connect generations.

## **9. ADDITIONAL ACTIVITIES FOR MIXED AGE GROUPS**

Creating extra activities within a mixed target group (with participants of different generations) can be instrumental in effective learning and interaction. Here are some examples:

### **Intergenerational discussions**

Organize thematic forums/discussions/debates on topical societal issues such as climate change, digitalisation, or social movements with younger and adult learners sharing their views and experiences.

### **Lessons from the past**

Create activities where adult learners share personal stories and lessons of the past for young people to record and reflect upon. This can even be taking stories of important historical events, social shifts, and cultural traditions.

### **Joint design project for the future**

Create group work around a project involving either the future of Europe, or global concerns, with each participant from different theories offering their perspectives to develop solutions.

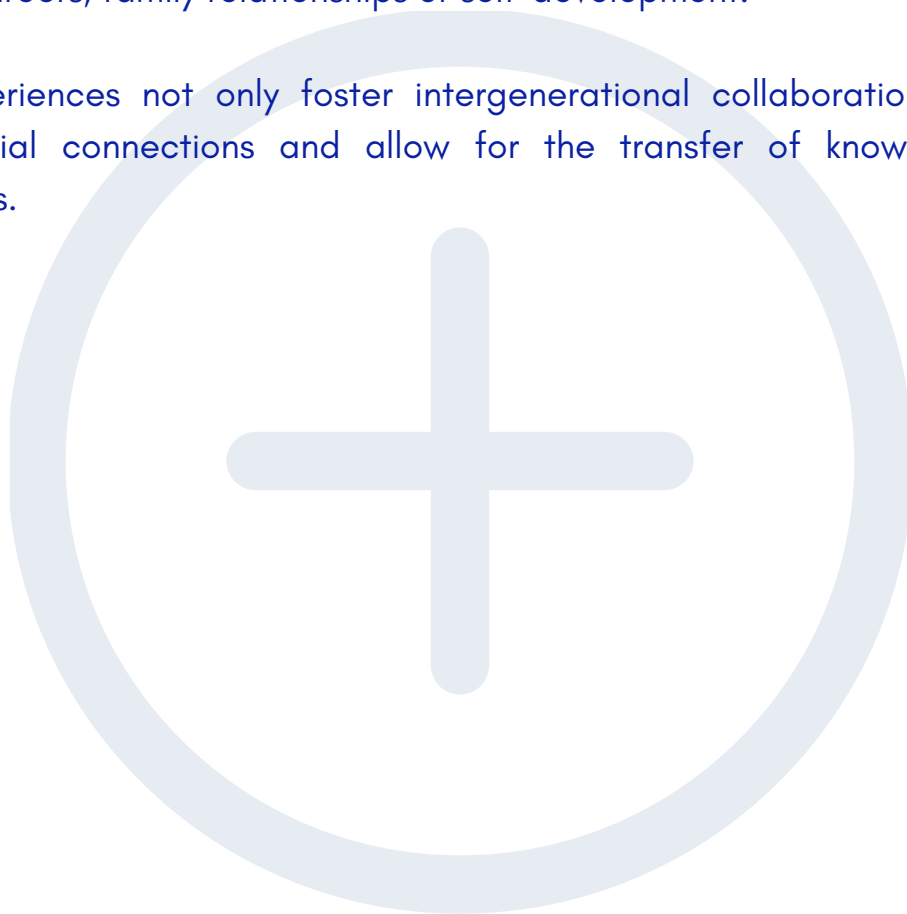
### **Cross-platform gaming**

Take advantage of mobile apps and platforms such as Kahoot! and Quizlet to implement cooperative games from the perspective of separately challenging different age groups to collaborate and compete against each other.

### **Mentoring and tutoring**

Encourage older participants to mentor the younger participants by passing on their experience and knowledge on a range of professional or personal issues entailing careers, family relationships or self-development.

These experiences not only foster intergenerational collaboration but also create social connections and allow for the transfer of knowledge and experiences.



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- Digital competence framework for adult learning

## UNESCO – Intergenerational Learning and Education (Policy Briefs & Reports)

- <https://unesdoc.unesco.org>
- Documentation on policies and benefits of intergenerational learning

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- <https://library.educause.edu>
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