



## **Gamify youR yOuth Work**

Curriculum on Gamification  
in  
Youth Work

## Gamify youR yOuth Work



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## Table of Contents

CONTENT	PAGE
MODULE 01: Introduction to Gamification	2
MODULE 02: Gamification in youth work and non-formal education	10
MODULE 03: Gamification in youth work and non-formal education - specific examples and successful case studies	22
MODULE 04: Gamification planning. How to effectively plan gamification activities (what, why, how?)	35
MODULE 05: Practical tools for the creation of gamification activities	45
Module 06 Gamification assessment and evaluation methods (badges, self-assessment, quizzes, etc)	64



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# GROW: Curriculum on gamification in Youth Work

## MODULE 01: Introduction to Gamification

### INTRODUCTION

This module is designed to act as an introduction to the term *gamification*, its main elements and the benefits of using gamification in different settings.

The module contains a short theoretical part followed by relative exercises that can be used in Trainings of Trainers, or trainings for youth workers and educators and ends in a set of self-directed learning and self-assessment activities.

The objective of this module is to achieve the following learning outcomes:

TOPIC	Knowledge	Skills	Attitude
<b>Introduction to gamification (what it is? What are its main elements? What are the benefits?)</b>	<ul style="list-style-type: none"> <li>• Acquaintance with and understanding of the term Gamification</li> <li>• Familiarization with ways in which and settings where gamification can be used</li> <li>• Knowledge of the use and benefits of gamification</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to explain what gamification is to other youth workers/educators, etc</li> <li>• Ability to draw conclusions as to what constitutes gamification and what not</li> </ul>	<ul style="list-style-type: none"> <li>• Become more open to using gamification methods in different settings</li> <li>• Become aware of the usefulness of gamification in different settings</li> </ul>

## PART 01. SHORT THEORY

## 1.1 What is *gamification*?

### 1.1.1 Definition of Gamification

The term gamification is a relatively new word that made its appearance in the English dictionaries in the beginning of the 21st century. There are different definitions of gamification. For example, Oxford learners dictionary defines gamification as: *the use of elements of game-playing in another activity, usually in order to make that activity more interesting*, whereas Cambridge dictionary as the practice of making activities more like games in order to make them more interesting or enjoyable.

However, the definition that the majority of the sources seem to agree with, is that gamification is simply **the application of game design elements and game principles into non-gaming contexts**.

Regardless of the term being relatively new, the idea of adding game elements, such as points, badges, leaderboards, quests, stories etc.

A great example of gamification is the scouts' badges system, where scouts need to complete certain activities/tasks in order to earn their badges (orientation, fishing, camping, etc).



Additionally, companies have been using gamification strategies to promote their products for years, using points systems, loyalty awards, or membership levels, where the more you use a service/product, the higher level you get to and the more benefits you have (see frequent flyer cards).



### **1.1.2. Game elements in gamification**

In a conference paper presented in 2019 during the 19th International Conference on Advanced Learning Technologies, Toda et al. made a list of 21 game elements that can be used for gamification for educational purposes.

After extensive research and consultations with experts, Toda et al. (2019) proposed a taxonomy which comprises 21 game elements (as seen in image 2 above) and their description (see table I).

What is very important to remember is that although gamification uses game elements in non-game settings and it is not to be confused with game-based learning, which uses pre-existing or specially developed games to reach desired learning outcomes.

Gamification is mainly used as a tool to increase engagement and motivation of the users/learners. By setting specific goals to be reached, badges to be earned, levels to be conquered, the users are more inclined to work towards achieving these goals.

Take for example the learning platform Duolingo. It is primarily a platform that help its users to learn a foreign language. It encourages users to use the platform more by having the users pass levels, compete in challenges, earning badges after each achievement (ie. After completing story sets or learning XX number of new words, etc), and having a daily stream feature that counts the days of continuous play. All these are elements that make the use of the platform more fun and motivate users to continue using the app.

Another thing that you need to keep in mind when designing or using gamification is that “acknowledgement” or, in other words, feedback is an element that should not be underestimated, but should instead be part of any gamification activity planning. Direct feedback either positive or negative (it can be a short message, a badge, a simple acknowledgement of a job well-done or of the need to try again) is crucial as it allows the users to monitor their progress and motivates them to complete their tasks and reach their goals.

### **1.1.3. Benefits of gamification**

Gamification is used in many different settings and not without reason. We see it being used in marketing, fitness, education and training, health, corporate environments, different online apps and websites, and so on.

Gamification is a tool that helps to **increase motivation and engagement of the users**, as it plays onto peoples' competitive natures, as well as the need for accomplishment, recognition, and self-expression. In a way, gamification gives the users control over the process, as well as direct feedback on their progress and uses challenges or competition with other users to boost their motivation to complete their "tasks".

In addition, gamification **makes the process fun**. Whether it is used in learning, where learners need to achieve specific learning goals, in marketing, where consumers need, for example, to collect points, or in business, where employees are challenges to reach specific performance goals, gamification can make the process more fun.

Another great benefit in gamification is that it has **specific goals**. Gamification helps guide users to where they need to go next.

**Increased self-esteem and satisfaction** from the process can be another great benefit of gamification. The user can have an immediate view of their progress (level up, earn badges, reach goals) and that sense of accomplishment helps keep the motivation alive. Even in cases of failure, the users seem to be more motivated to try again in order to achieve the goals/tasks.

Finally, **feedback and recognition** are important aspects of gamification, as described above. It allows users to track their performance, but also feel that their achievements are instantly recognized.

### **Part 02: INTRODUCTION TO GAMIFICATION - TRAINING ACTIVITY**

This part of the module contains a comprehensive learning activity on introduction to gamification, designed to be used in f2f Trainings of Trainers or trainings of youth workers/educators. The aim of this activity is to support the learners to better understand the term gamification and its elements.

TITLE OF THE SESSION	INTRODUCTION TO GAMIFICATION
Approximate length	hour and 30 minutes
Group size	up to 30 participants
Equipment, materials & space needed	<p>A4 paper            Flipchart paper            Pens            Coloured markers            Magazines            Scissors            Glue            Adhesive tape            Internet Access            Laptops/smartphones            Projector/screen            Big space            Tables (at least as many as the groups formed) and chairs</p>
Objectives	<ul style="list-style-type: none"> <li>To support participants in understanding gamification and its use in different settings</li> <li>To support participants in discovering creative ways how gamification can be used</li> <li>To make participants more open into using gamification in the activities they implement</li> </ul>
Detailed description	<p>The session is divided in different parts.</p> <p><b>Part 01: Introduction to gamification (20 minutes)</b></p> <p>Step 01: The facilitator introduces the session to the participants. He/she can start by saying...</p> <p><i>Good morning. In this session, we are going to become more acquainted with the term gamification, its elements, and its uses.</i></p>



## Detailed description

**Step 02:** Projection of the video: **What is Gamification?**

[https://www.youtube.com/watch?v=Gh5D1Qu774&ab\\_channel=HClGames](https://www.youtube.com/watch?v=Gh5D1Qu774&ab_channel=HClGames)

**Step 03:** Facilitator leads a discussion about what is gamification and asks participants if they know of any gamification examples.

**Part 02: Understanding Gamification: Gamification in different settings (80 minutes)**

**Step 01:** Divide participants into groups of 4-6 people (5 mins)

**Step 02:** Give to each group a case study (see annex 1) and ask them to think how they would implement gamification in this specific situation. (10 mins)

**Step 03:** In their groups, participants need to come-up with a basic gamification strategy. To do so, they are encouraged to look up on other examples of gamification online, using their phones or laptops.

**Step 04:** Participants need to create a visual presentation of their strategy, using flipchart papers, coloured markers, magazine extracts, etc etc... (45 mins for steps 3 and 4 together)

**Step 05:** Each group has 3-5 minutes to present their results. Allow time at the end of all presentations for comments and observations on the strategies (20-30 mins)

**Part 03: Debriefing**

It is very important to finish the session with a debriefing.

The facilitator can ask questions such as:

- How was the process of trying to come up with a gamification strategy?
- Having now seen all presentations and having researched examples of gamification online, do you think that you now have a better understanding of gamification?
- How is gamification different to game-based learning?
- If you had to do the activity all over again, what would you do differently?
- Did you enjoy this activity? Is there anything that you would change or add?

**Tips, recommendations for the  
trainer/facilitator**

Be present. Check to see if the participants are comfortable and have understood what they need to do.

If needed, give them more materials to review, such as the following articles:

**THE ULTIMATE DEFINITION OF GAMIFICATION (WITH  
6 REAL WORLD EXAMPLES)**

<https://www.growthengineering.co.uk/definition-of-gamification/>

**5 Top Examples of Gamification**

<https://www.gamify.com/gamification-blog/examples-of-gamification-with-dr-zachary-fitz-walter?hsLang=en-au>

**Part 03: INTRODUCTION TO GAMIFICATION - Self-directed Learning Activity**

This part of the module contains an activity for self-directed learning that will help the users consolidate their understanding of gamification and its elements.

**ACTIVITY 01**

After reading part 1 of this module and watching the following videos:

**GROW video tutorials:** <https://grow-project.eu/video-tutorials>

**Other resources**

Video 01:

[https://www.youtube.com/watch?v=\\_Gh5D1Qu774&ab\\_channel=HCIGames](https://www.youtube.com/watch?v=_Gh5D1Qu774&ab_channel=HCIGames)

Video 02:

[https://www.youtube.com/watch?v=5MxNc0fhk20&t=90s&ab\\_channel=Gamify](https://www.youtube.com/watch?v=5MxNc0fhk20&t=90s&ab_channel=Gamify)

**Test your knowledge by answering the questions of the GROW quiz:**

<https://grow-project.eu/quiz>

## **ANNEX 1: ACTIVITY HANDOUT**

Cut the instructions and give one case to each group. These are mere examples. You can adapt them or use your own.

- **Group one:**

You are a company that sells chocolates, and you want to launch a marketing campaign that includes gamification. Design your gamification strategy.

- **Group two:**

You are a teachers of history. This semester you are teaching European History of the Middle ages. You want to engage and motivate your students by using gamification. Design your gamification strategy.

- **Group three:**

You are youth workers and you want to motivate your young people to volunteer in community activities using gamification. Design your gamification strategy.

- **Group four:**

You are trainers and are about to give a training on intercultural learning and communication. You have designed your sessions, but you want to use gamification as a way to better engage the participants in the learning process. Design your gamification strategy.

- **Group five:**

You are the human resources department in a company that sells clothes, and you want to increase motivation and productivity of your employees working in the sales department using gamification. Design your gamification strategy

## MODULE 02: Gamification in youth work and non-formal education

### INTRODUCTION

This module is designed to act as an introduction to the term gamification in youth work, how it can be used and raise awareness on its benefits and risks.

The module contains a short theoretical part followed by relative exercises that can be used in Trainings of Trainers, or trainings for youth workers and educators and ends in a set of self-directed learning and self-assessment activities.

The objective of this module is to achieve the following learning outcomes:

TOPIC	Knowledge	Skills	Attitude
<b>Gamification in youth work and non-formal education (How does it work? Benefits and risks).</b>	<ul style="list-style-type: none"> <li>Knowledge about the ways how gamification can be used in Youth Work and NFE</li> <li>Familiarization with the benefits and the risks of using gamification in youth work and NFE</li> </ul>	<ul style="list-style-type: none"> <li>Ability to explain how gamification can be used in youth work and NFE</li> </ul>	<ul style="list-style-type: none"> <li>Awareness of the importance of the use of gamification in youth work.</li> </ul>

## **PART 01. GAMIFICATION IN YOUTH WORK, BENEFITS AND RISKS**

### 1.1 What is *gamification* in youth work and non-formal education?

#### **1.1.1 The concept of Gamification in youth work**

Even not being aware of the “gamification concept”, organizations, youth workers and individuals working with youth constantly have searched and used new ways of engaging young people in more interactive and fun ways.

In the 21st century it involves social media, project management and assessment tools, competition elements, special design for tools and campaigns, digital solutions, development of special training and programmes supplemented with different ice-breakers, energizers, get to know each other, networking and leisure activities, team works, simulations and many more.

Basically, gamification in youth work and non-formal education is all about boosting activities with elements which can help to engage the target group and maintain their interest in a topic or activity.

Gamification in youth work can be evaluated as a tool for a variety of activities:

- socialization;
- meeting with peers;
- identification with society;
- identification of expectations;
- demonstration of goals to be achieved;
- linkage of expectations with goals;
- linkage with benefits at the end;
- evaluation of achievements;
- identification of further personal development needs;
- soft skills training;
- contributions and appreciation of others.



In order to achieve the results we wish to, it is important to pay attention to some principals:

**1. Hands-on approach.** Instead of giving knowledge, learning by doing needs to be promoted.

**2. Simulations.** The “knowledge to memorize” needs to be substituted with roleplaying, which creates and improves skills, habits and behaviors. It initiates the independent thinking process, problem solving ability and creativity, which are necessary skills for the future market.

**3. Creativity.** There are different ways of problem solving, and each approach needs to be analyzed individually, not judged. In the case of young people, it eliminates the fear of expression, enhances initiative and allows creativity.

**4. Feedback.** Different methods can be borrowed from games and digital apps to give meaningful feedback on the job done and motivate them to do even better. It allows visualizing progress and comparing to others.

**5. Social component.** Synergy can be reached within a collaboration with others, and new things learned, by simply discussing in a team. Self-development cannot be reached without practical life skills training.

### **1.1.2 Game elements and their functions**

Similarly to any game, gamification uses the power of games and includes such components as: a goal that has to be achieved, rules that specify how the goal is to be reached, a feedback system that shows the progress achieved, and the principle of voluntary participation (as listed by Jane McGonigal); as well as elements like time, competition, cooperation, reward structure, levels, storytelling, a curve of interest, and aesthetics, added by Karl Kapp.

Elements can be classified more specifically or generally, depending on the author of this classification.

A more specific description of each element can be found in the Table below:

Game elements	Description	Motivational functions
Quests	Little tasks that have to accomplish within the game	Quests provide clear goals, highlight the consequences of a goal and emphasize the importance of a player's action within a given situation
Points	Rewards accumulated for certain activities within the game	Points function as immediate positive reinforcement that take form of mostly virtual rewards, provided for executed actions
Badges	Visual representations of achievements that can be collected within the game	Badges display the player's success in the form of virtual status symbols and therefore motivate the player. Badges denote group identification by communicating shared experiences and activities, thus enhancing the feeling of affiliation. Badges also represent a goal-oriented function and the player's competence.
Progress bars	Feedback on the player's current progress towards the goal	Both progress bars and performance graphs provide feedback. Progress bars depict distance from the goal.

Game elements	Description	Motivational functions
Performance graphs	Feedback on the player's performance in comparison to their previous performances	Performance graphs compare the players' performance to previous performances, thus noting improvements and fostering a motivation to achieve mastery.
Leaderboards	A list of all players, usually ranked by their success	Individual leaderboards foster the sense of a competition and motivate achievement. The players who top the leaderboard may feel especially competent, while those at the bottom may feel demotivated Leaderboards that provide a team score can foster a feeling of social relatedness among the team members, since such leaderboards emphasize the collaboration needed for shared goals.
Meaningful stories	The story line the player lives through within the game	By offering a variety of meaningful stories, feelings of autonomy can arise. An inspiring character can increase positive feelings. Stories should match the player's interests and spark attention to context.
Avatars	Visual representations that the player can choose to associate themselves with	The option to choose from various avatars can foster a feeling of autonomy. Positive feelings and emotional bonds can arise by providing many avatars.



Profile development	Development of the avatar and its attitudes	
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### 1.1.3. Benefits of gamification in youth work



Gamification has a huge impact in non-formal education and youth work. It allows us to bring attention to topics difficult to elaborate and helps discussing and learning in a relatively easy way. Also, it allows young people with different backgrounds to be closer to each other and with the topic of the activity.

It is observed that the engagement is greater when gamification tools are integrated into the educational process. Gamification elements are useful for young people who encounter difficulties in cognitive, methodological, or social learning (slow learning, lack of organization in work, resistance to rules etc.).

Gamification allows participants to learn better through repetition, identify mistakes in a non evident way and help youth to understand their way of learning.

### Increase Learner Engagement

Games appeal to our basic instinct to play. Games can transform dull content into engaging and interesting experiences, can encourage friendly competition among colleagues, and can lead learners to feel pride in completing a course after a series of gamified challenges and tasks. Learners who are cognitively active, are enjoying the learning process, and who feel genuine emotions in response to the outcome of an educational game will enjoy higher retention of the content. Physical and mental activity make for more meaningful experiences than passively scrolling, clicking next, and listening to long lectures, and this activity correlates to increased employee engagement metrics and higher productivity on the job. Gamification is one way to lead learners to want to achieve the learning objectives of a course.

### **Provide Instant Feedback**

One necessary feature of games is the delivery of feedback, whether positive or negative. Educational games allow learners to progress, not by chance, but by having the right knowledge or correct response to a question or scenario. Similarly, the lack of knowledge or an incorrect response does not allow learners to move forward. By incorporating instant feedback into gameplay and even tying this feedback to the game's outcome, learners can monitor their progress throughout the game and may even feel intrinsically motivated to complete the game successfully. Leaderboards and scoreboards offer an additional feedback mechanism, allowing learners to see how their results compare to their peers.

### **Boost Motivation with Features Such as Badges**

Badges in gamified learning content can be as simple as virtual ribbons, stickers, or prizes that learners earn for the completion of modules or tasks within the game. These badges can be displayed in several places, from inside the game, on the company's intranet, or even externally in places such as LinkedIn. According to Medium, badges are crucial "because they make the user feel important and skilled." Badges give learners a sense of completion as well as a sense of authority, as they are a tangible symbol of the learner's accomplishments

#### **1.1.4 Risks of Gamification in youth work**

Like any other tool, gamification has its risks and it doesn't solve all inefficiencies linked to the activity. In fact, there may be other problems aside from motivation that need to be accounted for.



For instance, a poor learning environment or content, or a lack of facilitator support, may be the cause of inferior training programmes. It also may easily shift the focus to another directions not linked with the topic.

In other words, while gamifying can prove to be transformative, it can sometimes be counterproductive. If you don't consider your audience and their needs, you may struggle to achieve your original activity objectives. Given these points, simply adding game mechanics to training does not automatically guarantee learner engagement.

## Risks of gamification in non-formal education process:

- **Over-gamifying**

If you gamify everything, you risk losing learning results. Educators should deliver different aspects of learning via different methodologies. Along with gamification in education, there are classroom instruction, webinars, and e-learning courses.

- **Forcing everyone into games**

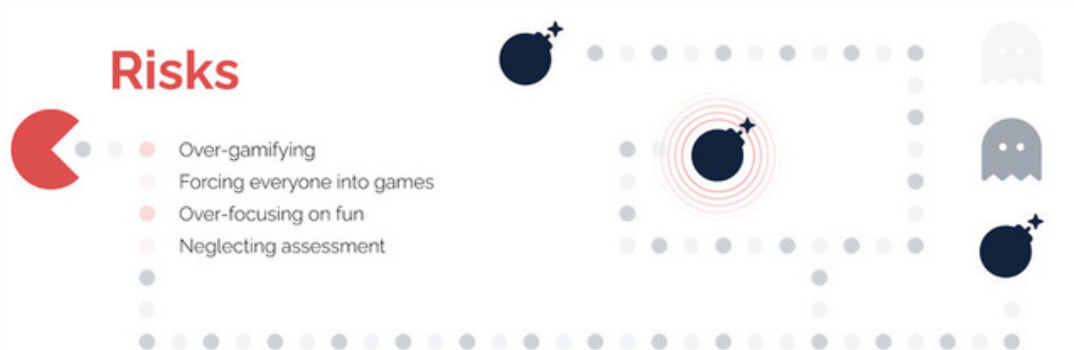
You can't expect that each student or trainee will enjoy gamification. There are people treating learning seriously. Making them play instead will result in adverse learning experiences. Students may feel dissatisfied, confused, or skeptical.

- **Over-focusing on fun**

While focusing on making your course fun, don't forget about the purpose you pursue. Gamification and simulation help you achieve the learning goal. They aren't the goal themselves.

- **Neglecting assessment**

You have to track the performance and productivity of your students. Don't forget about regular outcome assessment while pursuing other gamification techniques. Otherwise, you risk failing the essential purpose of learning and training.



**Part 02: Gamification in youth work and non-formal education - TRAINING ACTIVITY**

<b>TITLE OF THE SESSION</b>	<b>Gamification in youth work and non-formal education</b>
<b>Approximate length</b>	1 hour
<b>Group size</b>	up to 30 participants
<b>Equipment, materials &amp; space needed</b>	A4 paper Flipchart paper Pens Coloured markers Adhesive tape Big space 4 Tables and chairs
<b>Objectives</b>	Bringing the gamification method closer to participants and better understanding of specific gamification elements that support the learning experience

## Detailed description

The session is divided into three parts.

**Part 01: Introduction to gamification in youth work  
(10 minutes)**

The facilitator introduces the session to the participants. The facilitator explains how gamification is used in non-formal education and why it is used.

Part 02: Brainstorming and exploring through elements, benefits and risks of gamification in youth work (36 minutes)

**Step 01:** Divide participants into 4 groups (2 min). Each group should be positioned in a discussion table. Each “discussing table” should have a leader who will take notes while discussing and is the only one who will not change position.

**Step 02:** Each group has a question to discuss which will be given as below.

1. Why should gamification be used in youth work and nonformal education?
  2. Which elements of games can be used in gamification?
  3. What are the benefits of gamification in non-formal education?
  4. Which are the risks of gamification in youth work?
- The group has 3 minutes to respond to the question and take notes.

**Step 03:** After 3 minutes, except for the group leader, other participants change “discussing table”. Group one goes to group 2 and so on, till they have been to the four “discussing tables”. Each time, the group leader of the table will explain what was discussed in order for the other participant’s give new opinions on the question.  
(12 min)

	<p><b>Step 04:</b> After finishing giving opinions, they will present the new ideas in a flipchart paper. The leader will present it. (10 min)</p> <p><b>Step 05:</b> Each group has 3 to present their results. (12 min)</p> <p><b>Part 03: Debriefing (15 min)</b></p> <p>It is very important to finish the session with a debriefing. The facilitator can ask questions such as:</p> <ul style="list-style-type: none"> <li>- Did you find it difficult to express yourself on the related questions?</li> <li>- Did you have any disagreement with the discussion groups?</li> <li>- Do you think gamification is crucial to non-formal education?</li> <li>- Do you think the benefits overcome the risks?</li> <li>- If you will use gamification in your work, will you be more aware of the risks?</li> <li>- Do you feel now able to explain the importance of gamification?</li> <li>- Do you have anything to add?</li> </ul>
<p><b>Tips, recommendations for the trainer/facilitator</b></p>	<p>Make sure that all the participants and group leaders have understood what they need to do. It is important that they feel comfortable to express themselves on the topics.</p>

**Part 03: Gamification in youth work and non-formal education -  
MATERIALS FOR BETTER UNDERSTANDING**

**GROW video tutorials:** <https://grow-project.eu/video-tutorials>

**Other resources:**

Video 01: <https://www.youtube.com/watch?v=haei30lDwHw>

Video 2: <https://www.youtube.com/watch?v=SWPDYhtX96Y>

Video 3: <https://www.youtube.com/watch?v=iQ2we6JcFkl>

**Test your knowledge by answering the questions of the GROW quiz:**  
<https://grow-project.eu/quiz>

## MODULE 03: Gamification in youth work and non-formal education (specific examples and successful case studies)

### INTRODUCTION

This module is designed to further introduce gamification as a concept within the area of youth work and non-formal education, by referring to specific examples and case studies on how the concept can be used within this aspect.

There are countless resources for enhancing the youth work practice and making the process more fun and effective. This module will introduce some specific examples with gamification activities that include role play, through which young people are asked to pose arguments following diverse roles and introducing healthy competition. Technology can greatly aid the implementation of youth work through games.

The objective of this module is to achieve the following learning outcomes:

TOPIC	Knowledge	Skills	Attitude
<b>Gamification in youth work and non-formal education (specific examples and successful case studies)</b>	Knowledge on using gamification in youth work and non-formal education by practicing specific examples and successful case studies.	Ability to include the gamification elements in activities involving youth work and other non-formal education.	Openness to remain curious, adaptable and willingness to learn new things by using the gamification method.



## **PART 01. GAMIFICATION IN YOUTH WORK**

### **3.1. Specific Examples and successful case studies in youth work**

#### **3.1.1. Case study: Using Computer Games in Youth Work**

Increasingly, for many young people, social media and computer games are the medium and the social space in which they meet and make friends. It is a very different space to the youth centers, clubs, streets or public parks that are envisaged as the context in which youth work happens. However, it certainly is a social space and one in which young people are increasingly expressing themselves, engaging with each other, developing their understanding of the world and articulating their views. In this context, there is considerable discussion and interest in the concept of virtual or digital youth work. The term 'digital youth work' means proactively using or addressing digital media and technology in youth work as a tool or an activity. The intention within this area of practice is to use technology, and elements like computer games and virtual reality, as a means of engaging with young people.

There are many different ways in which youth workers can integrate computer games into their practice. Much of this depends on what you are looking to achieve and whether you have the confidence to use computer games in this way. At a basic level, you can use computer games to encourage young people into a youth work setting either by making games available in a center, or by setting up play events online. If you intend taking computer games a step further, using them to do youth work, it is best that they are integrated into a well thought out and structured programme.

There are a number of points to keep in mind:

It is best to dedicate time to consistent game-play rather than using computer games sporadically or for a single purpose. In this way, games become a part of the routine of the youth group and your relationship with them.

- As with any youth work intervention, you will need to clearly determine the purpose of game based learning and choose the approach, the game or the games you intend to use carefully.

- You should first play the game with colleagues in order to ensure it aligns with your values, the learning you want to achieve and the interests and abilities of your youth group.
- When you are using games in this way, it is best to structure the process to involve a learning phase, playing phase and a debriefing phase. That is to say, you share information about an issue, (for example, climate change) play a game about climate change and then debrief on how the group found the experience, what they learned and how they want to respond to it. There are many different ways in which you can structure this process – e.g. share information, then play, debrief and respond. Or perhaps share information, then play, debrief, share more information, play again, debrief and then respond. Or you could play the game as the starting point in order to motivate the group to learn and then follow this up by sharing information and encouraging them to act on the issue.

Within computer-games-based-learning, there are three distinct approaches which are commonly used in both formal and non-formal education:

- The first, special purpose games, is to access and use games which are specially designed for the educational purpose you intend.
- The second, commercial off-the shelf games, is to use mainstream games to highlight an issue.
- The third involves facilitating young people to make their own computer games.



### **Special Purpose Computer Games**

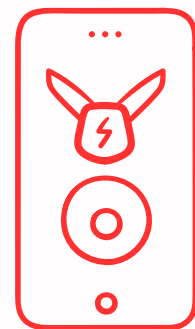
The most common way of using computer games is to find customized games which are already designed to achieve particular learning outcomes. There are many knowledge-based games dealing with mainstream subjects such as math, science, geography, languages etc. Increasingly computer games are used to teach skills in first aid, science, conflict resolution, engineering and to encourage change in behavior with respect to, for example, diet, recycling and mental health.

Simulation games have been used to draw attention to conflicts and to encourage action on the part of players. *Darfur is Dying* was developed in order to highlight the conflict in Darfur. *PeaceMaker*, *9/12*, *This War of Mine* and *War on Terror* all look critically at geopolitics and conflict. *World Climate*, *World Without Oil*, *AdaptNation*, *Never Alone* and *Bee Simulator* are examples of games being developed to raise awareness and engagement with climate change. Computer games such as *Papers Please*, *My Life as a Refugee*, *Against All Odds* and *Salaam* are games about migration and refugees.

In recent years, some Development Education organizations have been experimenting with the use of virtual reality in their practice (e.g. Concern Worldwide). The UK's Department for International Development (DFID) has collaborated with Google Expeditions on a series of virtual tours of UK Aid projects. These can expose viewers to an immersive experience of a Syrian refugee camp, enabling them to learn about the stories of individual children who have been forced to leave their homes. The UN's *Clouds Over Sidra* shares the story of Sidra, a Syrian refugee living in the Za'atari camp in Jordan. In the video, the viewer is virtually taken by her hand on a tour around the camp where she and 90,000 other refugees live.

### **Mixed Reality Games**

Two further concepts which are important in the contemporary gaming context are virtual reality and augmented reality, collectively referred to as mixed reality. These produce a further layer of immersive and collaborative potential and have become more accessible in recent years with the ongoing popularisation of virtual reality headsets and location-based games.



Augmented Reality (AR) games are a genre which combine the real world with fantasy. They have, in recent times, harnessed technology to seamlessly integrate both physical and computer-generated environments in games such as *Pokémon Go*. This AR game produced a cartoon-style map of the users' real-world location. It then superimposed *Pokémon* creatures that the player had to pursue and capture. While this game may seem quite frivolous, its developers envisaged it as a game to promote physical activity and mental well-being. Its popularity, with 65 million monthly active players nine months after its launch, demonstrated the technical capabilities and the level of engagement that such applications can command.

*Virtual Reality (VR) has been defined as 'a three-dimensional, computer-generated environment which can be explored and interacted with by a person. That person becomes part of this virtual world or is immersed within this environment and is able to manipulate objects or perform a series of actions.'* Virtual Reality Society (2017)

### Commercial Off-The-Shelf Games



Another approach to take with games-based learning is to design learning into an existing mainstream commercial game. Minecraft can be used for projects in construction, design, electronics and coding. Assassins Creed can be used to explore geography and history. Roblox can present opportunities to engage with problem-solving in maths and business. Civilization and the various editions of The Sims can address issues of planning and sustainability. In order to use these games, you will need to be familiar with them yourself.

Remember such games were designed as entertainment, and will need to be shaped and integrated into a learning or personal development process within a youth work context. While many games have significant learning and skills development built-in, you can add to this in a straightforward way. Get a group to work together to recreate their youth centre or other public buildings in Minecraft. Add some technical challenges - opening doors, working lights, using lifts etc. Get groups to build a town in Minecraft and to decide on where certain buildings are located. SimCity or Roblox could be used similarly.



## PART 02. GAMIFICATION IN NON-FORMAL EDUCATION

### 3.2. Specific Examples and successful case studies in non-formal education

#### 3.2.1. Case study: Gamification in the Informal Learning Space of Higher Education (in the Context of the Digital Transformation of Education)

Informal education is a type of education that doesn't follow a rigid structure and doesn't always happen on the school or university premises. This term encompasses individual classes under the guidance of coaches or tutors and short-term courses that pursue practical short-term goals. Such training or lectures are often conducted by public organizations, volunteers and universities, and they are free for students.

The informal learning space does not categorize students by age, professional or intellectual abilities, and sometimes has no actual time limitations. Institutions or organizations that provide informal education usually do not award qualifications and do not conduct a formal assessment of participants' academic achievements (Tkachenko 2015, p. 304).

Today, informal education is on the rise as the entire world has recognized its benefits. While 7-10 years ago there were a handful of specialists involved in this field, today, we recognize a powerful, comprehensive infrastructure. The introduction of quarantine restrictions related to the response to the COVID-19 pandemic has become a catalyst to this incredible change.

The second most important reason is that technological progress and competition urges businesses to increase the entry professional requirements for potential employees.

Gamification in the informal learning space of higher education is focused on utilizing students' main wishes, promoting students' involvement in the learning process, encouraging achievement and significant results. Such efficiency is explained by two factors:

- Immediate feedback. Passing levels and some "assessment" mechanics allow the student to immediately get an analysis of their results. In this case, the gamified system responds to the target actions of the player, gives room for maneuvers and this is how a student consciously approaches the learning strategy. (Werquin, 2012);
- The versatility of mechanics and forms. Each student can have their prototype of a player, an appropriate character and strengths, which means that to achieve the best results, each student must be motivated and participate voluntarily. The variety of mechanics that gamification provides help find an individual approach to different students of higher education (Romi & Schmida, 2009).

Speaking of the natural ways of gaining knowledge and practical skills, college undergraduates prefer the excitement, a story with a plot, a game.

These elements facilitate the consolidation of the information received during lectures. What is especially valuable is that a gamified system generates or simulates stressful or ambiguous situations encouraging a student to reveal their inner intellectual and psycho-emotional reserves. This is a recent practice of selecting specialists used by potential employers, which is not based on the student's grades or the diploma. (Lepper, 1998).

The use of gamification in the informal educational space of higher education can create a game environment that stimulates the internal motivational process through a situation of choice, steering the student towards exploration and independent action. The possibility to make a choice and implement it while solving a problem, allows a student to grasp the meaning of the action "from within". A personal choice leads to meaningful action, and this sequence turns the learning process into a vital goal, which is a condition for effective learning. The student is not alienated from the educational process, as sometimes happens in the case of formal learning, but, on the contrary, they become involved in it. Now a student is motivated to resolve a task and this motivation is related to the internal content of the discipline. (Malone & Lepper, 1987, pp. 23–27).

The formation of a student's conscious attitude to learning involves independent and responsible action, which means a student accepts the educational goals and objectives inside the informal learning space. The difference between the communication component of the informal educational environment (game platform) and the formal educational communication lies in the principle where the educational information is not only transmitted in the virtual reality but, first of all, it offers actions to solve educational tasks with regard to the goal. Knowledge is not transmitted but created, while the student does not prepare for practical professional activity, but instead, joins it (Bessmertny & Gaenkova, 2016).

Today, coaches and teachers working in the informal learning space of higher education, in collaboration with computer game designers, are actively developing visualized models of informal learning and modular training programs based on virtual games. Game modules represent a systematic way of mastering learning material, which allows students to obtain practical knowledge in various subject areas (Sylvia, Tang, Wong, Li, & Cheng, 2021).

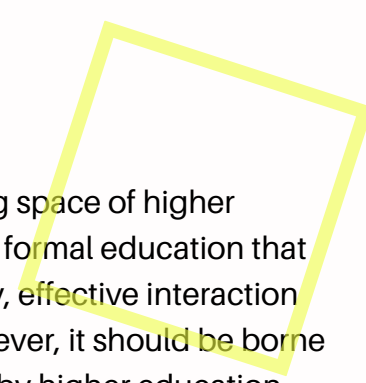
Since gamification is often preferred over other technologies ever deployed in the informal learning environment, it is necessary to identify and systematize the advantages of gamification and the ways to include the game in the system of informal learning:

No	Ways to include gamification in non-formal education	Advantages of gamification in non-formal education
1.	Creating game moments that support learning objectives.	This allows students to develop thinking and agility.
2.	Reward system in the educational process	Through obtaining incentives for completing the task students naturally reveal their best skills. <ul style="list-style-type: none"> <li>• system of points and scores</li> <li>• score table and rankings</li> <li>• internal prize store</li> </ul>
3.	Materialization of ideas	By making the ideas tangible and understandable, the teacher simplifies the assimilation of the material.
4.	The course is divided by levels of difficulty	One way to keep a student motivated is to make their progress visible. Each level involves overcoming obstacles and tackling the ever-increasing complexity of the content.
5.	Practice dominates over the theory	In gamified informal learning space, students are supposed not only to have knowledge but also to apply it in practical tasks. (Nicholson, 2012, p. 28).
6.	Encouraging independence	Gamification enables higher education students to demonstrate initiative and learn from their experience. To succeed in studying, one needs to carefully consider the lesson plan so that it is simple, short, and as clear as possible.



7.	Role-playing games in the learning process	In the role-playing game, the student acts on behalf of their character, uses the acquired knowledge and skills to solve problems in a non-typical situation. This visualization makes the learning process more emotional, improving its quality and motivating the student to follow through the topics one by one.
8.	Competition spirit	Gamification of learning in the informal educational space of higher education involves students/players' rivalry and confrontation where everybody tries to reach their goal.
9.	Interactivity	Different types of tests and materials, simulators and practical classes more actively involve the student in learning, making it interesting and more effective.
10.	Teamwork	Learning objectives, which require cooperation between groups of students, are a good example of practice and an element of gamification. Such tasks have to be interesting to perform, and they are all about creativity and collaboration between students.
11.	Room for risk	It gives a possibility to encourage a student to gamble inside a task and not be afraid of being punished for a wrong answer.
12.	Deadline system	A student is stressed by the time constraints, which increases their ability to retain information and makes intuitive learning possible. (Gamification).
13.	Case-based approach in the educational process	Situational learning is used in learning simulations, where higher education students explore the system, playing with its model (Nikitin, 2016).





The efficiency of gamification within the informal learning space of higher education is explained by its ability to fill in those gaps of formal education that are typically overlooked in conventional learning, namely, effective interaction and communication in the educational community. However, it should be borne in mind that there is a risk that new useful skills acquired by higher education students through informal education will not be in demand in formal education system.

Therefore, we believe that the progressive forms of informal education should be gradually injected into the tissue of formal education while also consolidated at the legislative level (Tsay, Kofinas, & Luo, 2018). It should be noted that the informal learning space in higher education is pivotal for the introduction of gaming techniques and practices in a non-gaming context with the educational purpose. This is reinforced by the rapid pace with which the innovative approaches and teaching methods are implemented and tested, including the widespread use of role-playing, situational and other types of games.

## **Conclusion**

The quality and affordable higher education is the solid foundation for the development of a forward-looking, progressive digital society. The countries that understood this at the right time have successfully built an effective system of both formal and informal education, navigating their economies through the sweeping waves of the new technological world and embracing the digital transformation.

Today, these are two parts of one whole, informal education is no longer perceived as the opposite of formal or its substitute. Information and communication technologies are an integral part of full-fledged professional training in the higher education establishment. Now, students have the realistic possibility to confidently join the workforce and feel comfortable in the conditions of the full scale digitalization of society.

### Part 03: GAMIFICATION - TRAINING ACTIVITY



This part of the module contains a comprehensive learning activity on introduction to gamification, designed to be used in f2f Trainings of Trainers or training of youth workers/educators. The aim of this activity is to support the learners to better understand how the two-upper mentioned cases (1. **Using Computer Games in Youth Work**, and 2. **Gamification in the Informal Learning Space of Higher Education (Digital Transformation of Education)**), can be used in the aspect of youth work non-formal education.

TITLE OF THE SESSION	Gamification in youth work and non-formal education (specific examples and successful case studies)
Approximate length	1 hour and 15 mins
Group size	up to 30 participants
Equipment, materials & space needed	Laptops/Tablet/Smartphones Internet Access A4 paper Flipchart paper Pens Coloured markers Scissors Glue Adhesive tape Projector/screen 1 space-room Tables (at least as many as the groups formed) and chairs;

Objectives	<ul style="list-style-type: none"> <li>• To support the participants in understanding gamification cases as part of youth-work and non-formal education;</li> <li>• To support participants in discovering creative ways how gamification can be used in the already mentioned aspect of the case studies;</li> <li>• To encourage participants to become more open to using gamification in the activities they already implement in the specific aspects of the case studies;</li> </ul>
Detailed description	<p>The session is divided into five parts.</p> <p><b>Part 1) 15 mins Reflecting on gamification - going through the two cases included in this module</b></p> <p>The facilitator in this part will give an overview of this session, and will kick-start the session by a short introduction of the topic (referring to the previous modules), and also going through the cases included in this module</p> <p><b>Part 2) 20 mins - Each participant is open to share their own practices regarding gamification (noting why they use it, and why not);</b></p> <p><b>Step 1) 5 min</b> - Divide participants in groups of 4, in a discussion table, and have them point down their own practices related to the case studies which have been previously discussed.</p> <p><b>Step 2) 5 min</b> - Each group representative will share with the rest the practices brainstormed within their group. In the meantime each group has to write down at least 1 question for the rest of the groups related to their discussion. Questions have to be related to the topic.</p> <p><b>Step 3) 10 min</b> - Questions have to be discussed jointly by all groups.</p> <p><b>Part 3) 20 mins</b> - Identifying new gamification cases to be used in youth work &amp; non-formal education. Each group has to identify new gamification cases to be used in their area of work (within group works and non-formal education)</p> <p><b>Part 4) 10 min</b> - Preparing a work plan including the new specific gamification element that the participants will plan to experiment in their area of work.</p> <p><b>Part 5) 10 min</b> - Food for thought:</p> <ol style="list-style-type: none"> <li>1. What can be the key takeaways of this session,</li> <li>2. What can be the next steps these participants can take;</li> <li>3. Test the knowledge &amp; evaluate the sessions;</li> </ol>

<p>Tips, recommendations for the trainer/facilitator</p>	<ul style="list-style-type: none"> <li>• Come prepared, and understand the meaning of this module, and the session as an activity;</li> <li>• Ensure that all participants are aware of the context of the module;</li> <li>• Encourage all participants to engage in the session;</li> <li>• Feel free to use your own methods and tools in order to make the sessions as interactive as possible;</li> <li>• Feel free to present new ideas within the lines of this module;</li> </ul>
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## **Part 04: GAMIFICATION IN YOUTH WORK AND NON-FORMAL EDUCATION ADDITIONAL USEFUL RESOURCES**

This part of the module contains useful links and resources that will help the users to further explore other examples and successful case studies.

**Gamification in eLearning article:** [click here](#)

### **ANNEX 1: ACTIVITY HANDOUT**

**GROW video tutorials:** <https://grow-project.eu/video-tutorials>

#### **Other resources:**

Gamification in the Informal Learning Space of Higher Education (in the Context of the Digital Transformation of Education):

<https://lumenpublishing.com/journals/index.php/po/article/view/4790>

Games-in-Youth-Work-Handbook-FINAL <https://www.youth.ie/wp-content/uploads/2020/11/Games-in-Youth-Work-Handbook-FINAL.pdf>

Gamification in e-learning: What is it? Examples and benefits:

<https://www.easygenerator.com/en/blog/e-learning/gamification-in-elearning/#:~:text=What%20is%20gamification%20in%20e,enabling%20users%20to%20have%20fun.>

**Test your knowledge by answering the questions of the GROW quiz:**

<https://grow-project.eu/quiz>

## MODULE 04: Gamification planning. How to effectively plan gamification activities (what, why, how?)

### INTRODUCTION

This module is dedicated to effective gamification planning activities, importance of planning and ways how to plan an effective gamification activity. Also, this module will clarify the difference between gamification and game-based learning and provide exercises that can be used in Trainings of Trainers, or trainings for youth workers and educators.

The objective of this module is to achieve the following learning outcomes:

TOPIC	Knowledge	Skills	Attitude
<b>Gamification planning. How to effectively plan gamification activities (what, why, how?)</b>	<ul style="list-style-type: none"> <li>• Knowledge on how to effectively plan online and offline</li> <li>• Familiarization with different gamification activities and their use</li> </ul>	Ability to adapt, create and plan gamification activities according to the objectives of the training and the needs of the target group	Becoming more open to introducing/including gamification activities as part of an NFE training or youth work activity both in person, as well as using digital means

## **PART 01. SHORT THEORY**

### **1.1 What is gamification strategy?**



In order to plan meaningful gamification activities, you can start by thinking about how to create play elements that align with a non-game context. In pursuing this strategy, you should recognize that the play activity must be, by definition, optional.

Creating a play space based on optional elements instead of imposing a scoring system and goals on participants will raise the chances of participants finding meaning and building internal motivation to engage with the non-game context. When designing the gamification activities, creating an information-based space where participants can explore on their own terms will enable play. Participants should be able to have the initial engagement with a concept that should create anticipation about what might happen, which can then lead to a surprise. The participant can embrace the surprise and gain pleasure and understanding.

At the heart of the concept of meaningful gamification is creating an information-based ludic learning space where participants can explore and find meaning. This can be a physical space or a virtual space, but the idea is the same - develop a set of mechanisms that can be used for play (and therefore be used for games) that help the participant discover what is interesting and relevant about the underlying non-game context and connect that to his or her prior experiences, knowledge, and skills. Since each participant is finding what is meaningful to him or her, each participant can take away different things from the gamification experience.

Another interesting model to consider for meaningful gamification is that of the science playground. A science museum contains exhibits and interpretations, and a participant should figure out what to do with each exhibit in order to explore the underlying principles. The science museum is a prime example of a ludic learning space. One problem with science museums is that a participant will be eager to manipulate the exhibit, will not read the instructions, and end up missing the underlying points. In developing meaningful gamification, this challenge will be present; players need to have free choice in accordance with the concepts of play, but designers need to make it easy for interested players to learn more about the non-game gamification setting.

When working on gamification and planning gamification activities it is important to clarify what gamification is not:

- Simply creating a game.
- An interactivity toolbox
- Simply adding points and badges to an activity and expecting it to magically become more engaging
- A design style
- An easy thing to do or to learn (an understanding of psychology, human behavior and much more goes into it)
- The solution for everything.

Gamification is a great tool with which you can reach following aspects that are very important in youth work

- Motivation-because gamification rewards participants and challenges them to keep going, they are motivated to improve and/or beat the competition.
- Engaged Learners: key to engagement is variety and interaction. Gamification is a small slice of the eLearning pie along with storytelling, scenarios, audio, video, graphics and social learning.
- Learner Autonomy. Gamification allows individuals to learn at their own pace and level, and taps into intrinsic motivators like competition, improvement, and completion.
- Instant Feedback. Games provide feedback as players demonstrate their mastery. If they do well, it's onto the next level; if not, they get another chance to see what they missed.
- Social Learning. Friendly competition and collaboration allow learners to forge new connections. A 2020 article in Educational Psychology Review found that learners respond positively to mild social pressure when they are competing with members of a community.
- Emotional Connection. Gamification often uses storytelling to help learners apply what they've experienced in simulated situations, which creates an emotional connection (and, in turn, stronger neural connections). Meaningful Goals. Leveling up and completing games gives learners meaningful, tangible goals to work toward.
- Cognitive Relief. Brains love to multitask, but multitasking can hurt training efforts. Games direct attention to one task at a time, which increases focus and reduces the cognitive load on the brain.

## 1.2 How to plan *gamification*?

Not to be confused with game-based learning, which asks youngsters to play games in the service of education, gamification is all about taking the features that make games so engaging and applying them in other kinds of learning activities. These features include things like:

- Experience points that accumulate toward mastery
- Badges that reward players for achieving something notable
- Leaderboards that show how players stack up against the competition
- Quests that let players make meaningful choices
- Checkpoints that mark progress toward a goal
- Boss battles that present a tough challenge and test players' skills



## 1.3. Why it is important to plan *gamification*?

When it comes to gamification, you want to drum up a lot of interest from your learners, so you might plan an organization-wide competition. The problem? If you create a competition that is too large in scope, you're bound to motivate those at the top of the leaderboard, but you'll probably lose those who are consistently on the bottom, without any chances to move up. Instead, plan on short-term competitions in a variety of applications, and create a leaderboard that resets after a week or so to give everyone a fair chance.

There is such a thing as "trying too hard" when it comes to gamification, especially if you're so focused on the aspect of fun that you miss the point of training. You could create the world's most exciting game, but if learners perceive that it has little to do with their training, they might ditch it for something more conventional. Respect your learners' time and remember that while edutainment is important, subject matter should still be on point.

Planning game-based training is great – unless, of course, your learners don't really understand the purpose. Without clear game goals, like target scores and outcomes, learners could lose interest. And, without clear rewards, such as badges and prizes, learners could lose motivation. Both goals and rewards should be an integral part of the planning and development stage of the game.



**Part 02: Gamification planning. How to effectively plan gamification activities (what, why, how?)-TRAINING ACTIVITY**

This part of the module contains a comprehensive learning activity on gamification planning. The aim of this activity is to support the learners to better understand what is the best way to plan the gamification in youth work, how to plan it to achieve learning experience.

TITLE OF THE SESSION	GAMING TO LEARNING
Approximate length	2 hours
Group size	up to 30 participants
Equipment, materials & space needed	A4 paper Flipchart paper Pens Colored markers Magazines Scissors Glue Adhesive tape Internet Access Laptops/smartphones Projector/screen Big space Tables (at least as many as the groups formed) and chairs
Objectives	<ul style="list-style-type: none"> <li>• To support participants in understanding gamification and its use in different settings</li> <li>• To understand the educational logic of games and what possible methods they can use to gamify the learning experience and vice versa</li> <li>• To make participants more open into using gamification in the activities they implement</li> </ul>

<p><b>Detailed description</b></p>	<p><b>Introduction/ 15 minutes</b></p> <p>Facilitators should introduce the session and provide theoretical input about learning aspects of gaming. Participants should be split in the groups-5 groups (6 pax) with the task to choose one game from the given list (facilitators should provide the list of 10 popular video games) and identify possible learning experience from the selected game</p> <p>Resource for the games:  <a href="https://www.ign.com/articles/the-best-100-video-games-of-all-time">https://www.ign.com/articles/the-best-100-video-games-of-all-time</a></p> <p><b>Group work/total duration 1h 15 minutes</b></p> <p>While playing and exploring the game reflect about elements and approaches, extract the learning aspects, and prepare presentation on the following requirements:</p> <ul style="list-style-type: none"> <li>• List the aspects of the game that are or can be educational</li> <li>• What is the type of learning activity you can develop from the game?</li> <li>• What is the exact knowledge the players could gain?</li> <li>• What are the skills a player could gain?</li> <li>• What attitudes a player could change or adopt?</li> <li>• Describe step-by-step how would you turn this game (or part of it) into a learning activity with possible challenges and define how the game could be used as an educational activity</li> <li>• List what you would choose as a reward to a player.</li> </ul> <p><b>Presentation and feedback/30 min</b></p>
<p><b>Tips, recommendations for the trainer/facilitator</b></p>	<p>Be present. Check to see if the participants are comfortable and have understood what they need to do.</p> <p>If needed, give them more materials to review</p>

**Part 03: Gamification planning. How to effectively plan gamification activities (what, why, how?)- Self-directed Learning Activity**

**GROW video tutorials:** <https://grow-project.eu/video-tutorials>

**Test your knowledge by answering the questions of the GROW quiz:**  
<https://grow-project.eu/quiz>

**ANNEX 1: ACTIVITY HANDOUT**

Cut the instructions and give one case to each group. When group decides which game they will use provide them more information on selected game. This should be prepared in advance. These are mere examples. You can use your own.

Group one:

Please select one of the proposed games from the list that you would like to elaborate further and identify possible learning experience.

While playing and exploring the game reflect about elements and approaches, extract the learning aspects, and prepare presentation on the following requirements:

- List the aspects of the game that are or can be educational
- What is the type of learning activity you can develop from the game?
- What is the exact knowledge the players could gain?
- What are the skills a player could gain?
- What attitudes a player could change or adopt?
- Describe step-by-step how would you turn this game (or part of it) into a learning activity with possible challenges and define how the game could be used as an educational activity
- List what you would choose as a reward to a player.

Game list:

- |   |                                 |
|---|---------------------------------|
| 1. <b>Super Metroid</b>                           | 6. <b>Red Dead Redemption 2</b> |
| 2. <b>The Legend of Zelda: A Link to the Past</b> | 7. <b>Half-Life 2</b>           |
| 3. <b>Portal 2</b>                                | 8. <b>Disco Elysium</b>         |
| 4. <b>Super Mario World</b>                       | 9. <b>Grand Theft Auto V</b>    |
| 5. <b>Mass Effect 2</b>                           | 10. <b>Hades</b>                |

**Group two:**

Please select one of the proposed games from the list that you would like to elaborate further and identify possible learning experience. While playing and exploring the game reflect about elements and approaches, extract the learning aspects, and prepare presentation on the following requirements:

- List the aspects of the game that are or can be educational
- What is the type of learning activity you can develop from the game?
- What is the exact knowledge the players could gain?
- What are the skills a player could gain?
- What attitudes a player could change or adopt?
- Describe step-by-step how would you turn this game (or part of it) into a learning activity with possible challenges and define how the game could be used as an educational activity
- List what you would choose as a reward to a player.

**Game list:**

- |   |                              |
|---|------------------------------|
| 1. <b>Super Mario 64</b>                          | 6. <b>The Last of Us</b>     |
| 2. <b>The Legend of Zelda: Breath of the Wild</b> | 7. <b>BioShock</b>           |
| 3. <b>Castlevania: Symphony of the Night</b>      | 8. <b>Bloodborne</b>         |
| 4. <b>Halo 2</b>                                  | 9. <b>Undertale</b>          |
| 5. <b>The Witcher 3: Wild Hunt</b>                | 10. <b>Street Fighter II</b> |

**Group three:**

Please select one of the proposed games from the list that you would like to elaborate further and identify possible learning experience. While playing and exploring the game reflect about elements and approaches, extract the learning aspects, and prepare presentation on the following requirements:

- List the aspects of the game that are or can be educational
- What is the type of learning activity you can develop from the game?
- What is the exact knowledge the players could gain?
- What are the skills a player could gain?
- What attitudes a player could change or adopt?
- Describe step-by-step how would you turn this game (or part of it) into a learning activity with possible challenges and define how the game could be used as an educational activity
- List what you would choose as a reward to a player.

Game list:

- |                               |  |
|-------------------------------|--|
| 1. <b>Super Mario Bros. 3</b> | 6. <b>Metal Gear Solid 3: Snake Eater</b>      |
| 2. <b>Portal</b>              | 7. <b>Minecraft</b>                            |
| 3. <b>Chrono Trigger</b>      | 8. <b>The Legend of Zelda: Ocarina of Time</b> |
| 4. <b>God of War</b>          | 9. <b>Sid Meier's Civilization IV</b>          |
| 5. <b>Half-Life: Alyx</b>     | 10. <b>Metal Gear Solid</b>                    |

#### **Group four:**

Please select one of the proposed games from the list that you would like to elaborate further and identify possible learning experience. While playing and exploring the game reflect about elements and approaches, extract the learning aspects, and prepare presentation on the following requirements:

- List the aspects of the game that are or can be educational
- What is the type of learning activity you can develop from the game?
- What is the exact knowledge the players could gain?
- What are the skills a player could gain?
- What attitudes a player could change or adopt?
- Describe step-by-step how would you turn this game (or part of it) into a learning activity with possible challenges and define how the game could be used as an educational activity
- List what you would choose as a reward to a player.

Game list:

- |                                  |  |
|----------------------------------|--|
| 1. <b>Super Mario Bros.</b>      | 6. <b>Resident Evil 4</b>                        |
| 2. <b>Half-Life</b>              | 7. <b>Metroid Prime</b>                          |
| 3. <b>Halo: Combat Evolved</b>   | 8. <b>Pokémon Yellow</b>                         |
| 4. <b>Red Dead Redemption</b>    | 9. <b>Star Wars: Knights of the Old Republic</b> |
| 5. <b>Shadow of the Colossus</b> | 10. <b>EarthBound</b>                            |

#### **Group five:**

Please select one of the proposed games from the list that you would like to elaborate further and identify possible learning experience. While playing and exploring the game reflect about elements and approaches, extract the learning aspects, and prepare presentation on the following requirements:

- List the aspects of the game that are or can be educational
- What is the type of learning activity you can develop from the game?
- What is the exact knowledge the players could gain?
- What are the skills a player could gain?
- What attitudes a player could change or adopt?
- Describe step-by-step how would you turn this game (or part of it) into a learning activity with possible challenges and define how the game could be used as an educational activity
- List what you would choose as a reward to a player.

Game list:

- |                             |   |
|-----------------------------|---|
| 1. <b>Tetris</b>            | 6. <b>Rise of the Tomb Raider</b>             |
| 2. <b>Doom</b>              | 7. <b>Super Mario World 2: Yoshi's Island</b> |
| 3. <b>Final Fantasy XIV</b> | 8. <b>SimCity 2000</b>                        |
| 4. <b>Ms. Pac-Man</b>       | 9. <b>Animal Crossing: New Horizons</b>       |
| 5. <b>Journey</b>           | 10. <b>Monkey Island 2: LeChuck's Revenge</b> |

Image 1: Source: <https://everyonesocial.com/blog/gamification-strategy-tips/>

Image 2: Source <https://www.hurix.com/selecting-gamification-services/>

### **Materials used:**

<https://everyonesocial.com/blog/gamification-strategy-tips/>

<https://elearningindustry.com/gamification-for-learning-strategies-and-examples>

<https://www.elearninglearning.com/examples/gamification/module/?open-article-id=15365761&article-title=elearning-gamification--how-to-implement-gamification-in-your-learning-strategy&blog-domain=elmllearning.com&blog-title=elearningmind>

[https://www.researchgate.net/publication/264129666\\_Strategies\\_for\\_Meaningful\\_Gamification\\_Concepts\\_behind\\_Transformative\\_Play\\_and\\_Participatory\\_Museums](https://www.researchgate.net/publication/264129666_Strategies_for_Meaningful_Gamification_Concepts_behind_Transformative_Play_and_Participatory_Museums)

## MODULE 05: Practical tools for the creation of gamification activities

### INTRODUCTION

This module contains information on practical online and offline tools that are helpful in creation of gamification activities in the field of youth work. It contains a short theoretical introduction of the tools followed by the relevant activities useful in the trainings for youth workers and educators. The objective of this module is to achieve the following learning outcomes:

TOPIC	Knowledge	Skills	Attitude
<b>Practical tools for the creation of gamification activities</b>	Familiarization with tools that can help create gamification activities both offline, as well as online	Ability to identify tools that can support the creation of gamification activities and effectively choose the tool that is more suitable for the objectives of the activity	Willingness to use different tools to facilitate the planning, design and creation of gamification activities

## **PART 01. THEORY**

### **1. What is gamification tool and technique?**

Gamification is based on the variety of tools and techniques that improve engagement of the students, their motivation and concentration. Software used in gamification consists of different tools and platforms that allow to apply game mechanisms to the different non game contexts such as work, school, and non formal activities. Observing the growing interest in gamification and gamified components, the app designers and software producers created many tools adopting specific features and elements that help to boost motivation of learners, performance of employees and attractiveness of learning activities.

However, there is a need to point out though, that gamification is not only about the technology, but about design. Therefore it doesn't need to be delivered online or with the use of any digital tools. Activities taking part offline can easily adapt game sensibilities to create an engaging and motivating experience. This is extremely relevant in non-formal and informal learning usually used by the youth workers and youth organisations.

In this module, we share with you some of the most useful digital tools, but also techniques introducing the gamification features in offline activities.

### **1.2 Digital tools for gamification**

#### **1.2.1 Actionbound** (<https://en.actionbound.com/>)



Actionbound is a tool useful in creating interactive activities with groups of people in outdoor spaces. This application gives a possibility to organize an educational tour around the city, guided walk or a fun treasure hunt as a bonding activity for a team.

Among many options, it offers a quiz mode with questions that allows getting points within the previously added number of possible attempts or penalties for the number of errors or time spent. The platform also allows tournaments that take place between the members of a team. It enables you to add photos and videos that can be scored in the app and are necessary to move on with another task. Actionbound allows you to set up the scenery of the treasure hunt in any location, such as your city, directing players with hints on Google maps.



This tool is especially interesting for the team building activities and city tours based on gamification. It introduces a competitive factor, score board and fun in learning about the new places.

### 1.2.2 Quizlet Live (<https://quizlet.com/>)



Quizlet is a learning platform that can be used by both youth educators and students to structure or enhance study. It allows to practice and consolidate the content through interactive cards, with diagrams (which allow you to mark the part of an image or illustration whose name or term you have to know), with the learning mode (with which the tool carries out an adaptation plan so that the students learn the content in the scheduled time) or through gamified actions such as games with time and score. Content can be imported. It is possible to create study units based on notes or existing documents in Word, Excel or Google documents format, for example.

### 1.2.3 Pear Deck (<https://www.peardeck.com/googleslides>)



Improving the performance of our explanations and presentations as youth educators is possible. Adding a dash of gamification with platforms like Pear Deck allows educators to improve the performance of their explanations and presentations by adding a dash of gamification to their presentation slides.

Pear Deck is a live slideshow tool that works with Google Slides or PowerPoint presentations, allowing students to view slides on their own devices. While giving a lesson, students can receive content such as questions, images or any type of support material. Its objective is to make the classes bidirectional to make the most of the explanations. Teachers can also add interactive slides to solicit feedback, do a quick formative check, or just see how your students are feeling today. When students reply, their answers can be shared anonymously by the educator so only they know who submitted which answer. This allows students to feel safe answering, knowing that a classmate cannot identify them for an incorrect answer.

Pear Deck provides 5 different types of interactive questions/answers: 'Draggable Response' (students drag objects over the slide), 'Drawing Response' (Students draw over the slide in) 'Free Response: Text' (long answers), 'Free Response: Number' (numerical answer) and 'Multiple Choice' (questionnaire).

Pear Deck goes beyond just being a slideshow tool with the Flashcard Factory vocabulary game. Flashcard Factory allows the educator to upload or create a list of vocabulary words and definitions using their own definitions or extracting them from an embedded dictionary. Students then pair up and take turns writing sentences with those words and drawing a picture to illustrate their sentence. They earn points for their team when their cards are evaluated at the end. Flashcards can be exported to Quizlet Live for further study.



#### 1.2.4 Quizizz (<https://quizizz.com/>)

Quizizz is an application that allows educators to gamify their classroom through the development of quizzes, thus obtaining the attention of the student and even encouraging active learning. In addition, it allows the student to self-assess with challenging games to determine her knowledge.

The application allows students to take quizzes related to any type of topic, either in turns or assigned by group by the youth educators. Students do not need to register since it will be the educators who will provide them with access to the questionnaires through a 'game pin'. Students always see the content on their own devices, be it PCs, laptops, tablets or smartphones.

There are five types of questionnaires that are available to create on the platform: 'Multiple Choice' (questionnaire), 'Check-Box' (multiple correct answers), 'Fill-in-the-blanks' (write the answer in the space provided for it), 'Open-Ended' (long answers) and 'Poll' (Not a correct answer, to get to know opinions). Media content like videos or images can be used on the questionnaires too.

Game modes are designed to encourage healthy competition between students. You can choose the mode of 'gaming' per quiz when you start a live quiz. This mode allows individual students to answer at their own pace but scores can be grouped by the collective team or they can compete individually against each other too.

Quizizz gives detailed class-level and student-level insights for every quiz. Using feedback from both live quizzes and homework assignments, create statistics that are both student- and classroom-focused. Every student's progress may be tracked, a subject's level of comprehension can be determined, and the learning curve can be assessed for each assignment.

### 1.2.5 **Socrative** (<https://www.socrative.com/>)



Socrative is a free application that allows the youth educator to motivate students to participate in the classroom and track their progress through multiple choice tests, evaluations or other activities.

Compatible with any device (PC, tablet or smartphone), one of its advantages is that students do not have to create a personal profile to be able to use the application; with the educator having his own, linked to an email account, it will be enough.

As for the activities available in the app, multiple options are offered: 'Quiz' (questionnaire), 'Space Race' (questionnaire with countdown) or 'Exit Ticket' (questionnaire with ranking of results). The type of answers can also be chosen between 'Multiple Choice' (multiple answer), 'True or False' (true or false) and 'Short Answer' (short answer).

In all three cases, the educator will be able to see the students' answers live and, at the end of the test, they will be able to review them in a report that is stored in the application itself. In this way, you will see the academic progress of each student individually, as well as see the questions that they have had failed so that you can go back to review the content if you think it is appropriate. The games deploy rankings that can be used as a form of evaluation.

Space Race function encourages pleasant rivalry among students. By having individuals or groups race across the screen with the right answers, a gradable evaluation can be transformed into a fun activity. Making it a race between the participants, celebrations are assured.

There are also two payment options (Socrative PRO for Primary and Socrative PRO for Secondary and Companies), which incorporate more advanced features.

### 1.2.6 **Kahoot** (<https://kahoot.com/schools-u/>)



Kahoot is a free platform that allows the creation of a fun learning game in minutes. Kahoot enables the opportunity to choose from different formats, a time limit to answer and the number of questions. Videos, images and diagrams can also be added to the questions to amplify engagement. Additionally, there are 3 paid plans that provide more sophisticated features.

Kahoots are best played in a group setting. To join a game, it is needed a unique PIN handled by the host of the game. Players answer on their own devices, while questions are displayed on a shared screen. One of its benefits is that students do not need to create a personal profile in order to use the application. The platform is suitable for any device (PC, tablet, or smartphone). In addition, to live games, kahoot challenges can also be sent that players complete at their own pace – for example, for homework or remote training.

There are different types of questions to choose from: 'Quiz' (questionnaire) or 'True or False' (true or false). 'Type answer' (short answer), 'Slider' (guess the number on a slider) and 'Puzzle' (place the answers in the correct order) are other types of questions that are part of the premium plan.

After each round of a quiz, points are awarded. Correct answers and the speed provide more points. There is a podium of the top 3 players or teams at the end of a kahoot game. This feature is made for players that are constantly eager to learn and love celebrating together with their classmates. Educators can also provide a prize to those who make it to the podium.

#### 1.2.7 **Mentimeter** (<https://www.mentimeter.com/>)



Mentimeter is a tool encouraging students' engagement with live polls, quizzes, multiple-choice questions and word clouds. The platform allows to build interactive presentations with easy-to-use online editor. It enables gathering opinions of the audience in live-time activity, which is not only time saving, but allows also adapting the task to the public. Furthermore, after the end of the presentation, there is a possibility to share and export results for further analysis. What's more, these results can be compared over time to check the progress of your learners.

#### 1.2.8 **H5P** (<https://h5p.org/>)



H5P is a platform for creating and sharing an interactive html5 content in the browser. The platform allows to create interactive videos, quizzes, course presentations or branching scenarios, which introduces gamified features in a self learning process. It includes a variety of content (dialog cards, crossword, drag and drop find words, guess the answer, image hotspots and many more) that can be useful in building not only a single activity but the whole training course for self-learning.

### 1.2.9 Genially (<https://genial.ly/it/>)



Genially application is a digital tool for creating interactive presentations and graphics. It can be useful in work with children and youth. Among a variety of presentation options, the tool offers rich animations, quizzes and escape rooms with interactivity. The standard content is available for free.

## 1.3 Gamification offline - techniques

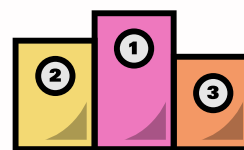


Gamification is mainly associated with new technologies and digital tools. However, there's no need for applications to incorporate gamification into different activities. There are a bunch of techniques that help to give your audience an exciting experience. What's more, many of these methods are successfully used in many non-formal and informal activities, such as popular ice breakers.

Here are some tips on how to implement gamification into your activities

### 1. Badge system

Badge system is a structure of symbols (badges) that people can earn through accomplishing various tasks that illustrate their knowledge and skills. Using badges can exchange a point system. It gives a simple reward of progress and makes visible milestones achievement.



### 2. Point system

It's the most typical and known element of gamification. The simple point system gives a sense of accomplishment and rewards task completion.

### 3. Competitive environment

In most of the games there is a competitiveness factor that creates engagement and motivation of players. Creating activities based on the competition can help in a team work building and boost participants' performance.

### 4. Leader boards

Leader boards are giving the immediate feedback and sense of competitiveness among the participants, letting them to feel proud of their achievements.

### 5. Story and narratives

Adding these elements can allow to create interesting and engaging activities, especially for young participants.

### 6. Clearly set goals and challenges

Let your participants know about the main goals of the activity and set challenging tasks to increase their interest.



### 7. Curiosity and element of surprise

Using cliff-hangers in your activities will keep participants curious about the next steps. Similarly, surprise elements allow you to avoid boredom and repetitiveness of the tasks.

The most typical offline gamification activities are simulation games and role play games that can be used to gather different ideas, boost teamwork, improve communication or help in conflict management.

#### References

1. IGI Global (<https://www.igi-global.com/dictionary/badge-system/50941>)
2. <https://hatrabbits.com/en/gamification/>
3. <https://xperiencify.com/gamification-tools/>

## Part 02: PRACTICAL TOOLS FOR THE CREATION FOR THE CREATION OF GAMIFICATION ACTIVITIES - TRAINING ACTIVITY

This part of the module focuses on exploring different practical tools and gamification methods through their practical use. The main aim of these activities is to familiarize participants with the variety of tools and equip them with the knowledge of activity creation with the use of these tools.



## Actionbound

TITLE OF THE SESSION	PRACTICAL TOOLS FOR THE CREATION FOR THE CREATION OF GAMIFICATION ACTIVITIES
Approximate length	120 minutes
Group size	up to 30 participants
Equipment, materials & space needed	Internet Access Smartphones
Objectives	<p>To familiarize participants with Actionbound</p> <p>To support participants in discovering new tool and ways of its usage</p> <p>To make participants open on a digital tools in their daily activities</p>
Detailed description	<p><b>Part 01: What is Actionbound? (15 minutes)</b></p> <ul style="list-style-type: none"> <li>• Make sure everyone successfully installed the app and logged in</li> <li>• Short explanation of the usage of this app</li> <li>• Questions</li> </ul> <p><b>Part 02: Explore the city (90 mins)</b></p> <p>Make new mixed groups and make sure that at least one person has wifi outside.</p> <p>City tour with Actionbound - exploring 7 secrets of Bologna</p> <p><b>Part 3: Comments,impressions about the city and the app (15min)</b></p>
Tips, recommendations for the trainer/facilitator	

## Mentimeter

TITLE OF THE SESSION	PRACTICAL TOOLS FOR THE CREATION FOR THE CREATION OF GAMIFICATION ACTIVITIES
Approximate length	70 minutes
Group size	up to 30 participants
Equipment, materials & space needed	Internet Access Laptops/smartphones Projector/screen Tables (at least as many as the groups formed) and chairs
Objectives	<ul style="list-style-type: none"> <li>To familiarize participants with Mentimeter</li> <li>To support participants in discovering new tool and ways of its usage</li> <li>To make participants open on a digital tools in their daily activities</li> </ul>
Detailed description	<p>The session is divided into different parts.</p> <p><b>Part 01: What is Mentimeter? (15 minutes)</b></p> <ul style="list-style-type: none"> <li>When to use it: Brainstorming, Evaluation, Quizzes, Testing, to engage the audience during a presentation, to have immediate feedback from the public</li> <li>Showing the features from the website: <a href="https://www.mentimeter.com/">https://www.mentimeter.com/</a></li> <li>What to know if participating: Enter code part Insert the answer and submit</li> <li>Tutorial video: <a href="https://www.youtube.com/watch?v=on_lb7SP6Go">https://www.youtube.com/watch?v=on_lb7SP6Go</a></li> </ul>



	<p><b>Part 02: Questions and impressions (10 minutes)</b></p> <p>Let participants to share their thought about the presented tool:</p> <ul style="list-style-type: none"> <li>• What do you think the tool is useful for?</li> <li>• How you can use it in your daily activities?</li> </ul> <p><b>Part 03: Work in groups (25 minutes)</b></p> <ul style="list-style-type: none"> <li>• Divide participants in groups of approximately 4-5 people (5 minutes)</li> <li>• Give each group the task *different features for each group* (Poll maker, Word Cloud, Quizz, Q&amp;A, Survey)</li> <li>• Give participants time (20 mins) to complete the given tasks in groups</li> </ul> <p><b>Part 04: Presentations of the group works and final comments (20 minutes)</b></p> <p>Ask each group to present their work and comment on the process of task preparation within the use of Mentimeter.</p>
<p><b>Tips, recommendations for the trainer/facilitator</b></p>	<p>Be present. Check to see if the participants are comfortable and have understood what they need to do.</p>

## Genially

TITLE OF THE SESSION	PRACTICAL TOOLS FOR THE CREATION FOR THE CREATION OF GAMIFICATION ACTIVITIES
Approximate length	80 min
Group size	up to 30 participants
Equipment, materials & space needed	Laptops/ smartphones (at least 1 per group) Stable wifi connection Projector/ Screens Tables and chairs
Objectives	To familiarize participants with Genially To support participants in discovering new tool and ways of its usage To make participants open on a digital tools in their daily activities
Detailed description	<p><b>Part 1: What is Genially? (15 minutes)</b></p> <p>Usage possibilities Specific characteristics of different features How to manage sign up and using the website</p> <p><b>Part 2: Let's explore! (40 minutes)</b></p> <p>Each group of participants will receive one specific situation in which a task should be created using Genially. Situations:</p> <ol style="list-style-type: none"> <li>1. You are environmental activists and trying to raise awareness of the importance of pollution (or other specific problems) among youth. How would you present your idea?</li> </ol>

	<p>2. You are a group of young artists trying to make their portfolio visible online. Try to present your work using the app.</p> <p>3. You are a teacher at high school, inventing a new more engaging style of teaching. Choose the subject and prepare a short task showing us your interactive class.</p> <p>4. You just opened a business company and need to find a way to promote your work through social media. Try creating your content using this app.</p> <p><b>Part 3: Short presentations followed by discussion about difficulties and providing the authors with a feedback (25 minutes)</b></p>
<b>Tips, recommendations for the trainer/facilitator</b>	Be present. Check to see if the participants are comfortable and have understood what they need to do.

### Socratic

<b>TITLE OF THE SESSION</b>	<b>PRACTICAL TOOLS FOR THE CREATION FOR THE CREATION OF GAMIFICATION ACTIVITIES</b>
Approximate length	85 min
Group size	up to 30 participants
Equipment, materials & space needed	<p>Laptops/ smartphones (at least 1 per group)</p> <p>Stable internet connection</p> <p>Projector/ Screens</p> <p>Tables and chairs</p>

Objectives	<p>To familiarize participants with Socrative</p> <p>To support participants in discovering new tool and ways of its usage</p> <p>To make participants open on a digital tools in their daily activities</p>
Detailed description	<p><b>Part 1: What is Socrative? (25 minutes)</b></p> <p>Prepare one test and give it to participants to solve from their smartphones. Result will be seen on the big projector so atmosphere can get competitive. Through the test content</p> <p>explain the main characteristics of the app, usage possibilities and discuss its capabilities for youthwork</p> <p><b>Part 2: Team work (40 minutes)</b></p> <p>Participants can use their time to explore the app individually and then try to create a test or some other feature by themselves in the smaller groups (3-4) on a topic of choice.</p> <p><b>Part 3: Short presentations followed by discussion about difficulties and providing the authors with a feedback (20 minutes)</b></p>
Tips, recommendations for the trainer/facilitator	<p>Be present. Check to see if the participants are comfortable and have understood what they need to do.</p>

## Kahoot

TITLE OF THE SESSION	PRACTICAL TOOLS FOR THE CREATION FOR THE CREATION OF GAMIFICATION ACTIVITIES
Approximate length	85 min
Group size	up to 30 participants
Equipment, materials & space needed	Laptops/ smartphones (at least 1 per group) Stable internet connection Projector/ Screens Tables and chairs
Objectives	To familiarize participants with Kahoot To support participants in discovering new tool and ways of its usage To make participants open on a digital tools in their daily activities
Detailed description	<p><b>Part 1: What is Kahoot? (15 minutes)</b></p> <p>Usage possibilities Specific characteristics of different features Questions</p> <p><b>Part 2: Test preparation (40 minutes)</b></p> <p>Each national group of participants will receive a task to present their country throughout a quiz that should be created using Kahoot. You can be creative, use videos, music, pictures, memes or whatever you find suitable for your idea.</p> <p><b>Part 3: Solving quizzes in the same national teams and competing for the small price (30 minutes)</b></p>

Tips, recommendations  
for the trainer/facilitator

Check to see if the participants are comfortable and have understood what they need to do.

### Quizlet

TITLE OF THE SESSION	PRACTICAL TOOLS FOR THE CREATION FOR THE CREATION OF GAMIFICATION ACTIVITIES
Approximate length	70 min
Group size	up to 30 participants
Equipment, materials & space needed	Laptops/ smartphones (at least 1 per group) Stable wifi connection Projector/ Screens Tables and chairs
Objectives	To familiarize participants with Quizlet To support participants in discovering new tool and ways of its usage To make participants open on a digital tools in their daily activities
Detailed description	<b>Part 1: Short theoretic explanation of the tool (15 min)</b> Possibilities of usage Different features

	<p><b>Part 2:</b> Make an account on Quizlet and try making an exercise for teaching the students new words of a language you pick. Using the options offered in the Quizlet make a short pitch and be ready to convince us that you are the best professor among us! <b>(30 min)</b></p> <p><b>Part 3: Short presentations and discussion about the experience of using this app (20 minutes)</b></p>
Tips, recommendations for the trainer/facilitator	

### Pear Deck

TITLE OF THE SESSION	PRACTICAL TOOLS FOR THE CREATION FOR THE CREATION OF GAMIFICATION ACTIVITIES
Approximate length	70 min
Group size	up to 30 participants
Equipment, materials & space needed	Laptops/ smartphones (at least 1 per group) Stable internet connection Projector/ Screens Tables and chairs
Detailed description	<p><b>Part 1: What is Pear Deck? (25 minutes)</b></p> <p>Short introduction to the usage of Pear Deck                      Features, Questions</p>

Detailed description	<p><b>Part 2 (40 minutes)</b></p> <p>Using Pear deck make a short presentation with the goal of making interaction with students in the situations given:</p> <p><b>Group 1</b> - making an opening of the class/ getting to know the auditorium;</p> <p><b>Group 2</b> - presenting the new chosen topic with providing students with questions they should answer to; Group 3 - You want to check how satisfied your students are after the class;</p> <p><b>Part 3:</b> Short presentations followed by discussion about difficulties and providing the authors with a feedback (15 minutes)</p>
Tips, recommendations for the trainer/facilitator	Be present. Check to see if the participants are comfortable and have understood what they need to do.

### Quizziz

TITLE OF THE SESSION	PRACTICAL TOOLS FOR THE CREATION FOR THE CREATION OF GAMIFICATION ACTIVITIES
Approximate length	80 min
Group size	up to 30 participants
Equipment, materials & space needed	<p>Laptops/ smartphones (at least 1 per group)</p> <p>Stable wifi connection</p> <p>Projector/ Screens</p> <p>Tables and chairs</p>



Objectives	<p>To familiarize participants with Quizziz</p> <p>To support participants in discovering new tool and ways of its usage</p> <p>To make participants open on a digital tools in their daily activities</p>
Detailed description	<p><b>Part 1: What is Quizziz? (15 minutes)</b></p> <p>Usage possibilities</p> <p>Specific characteristics of different features</p> <p>How to manage sign up and using the website</p> <p><b>Part 2 (30 minutes)</b></p> <p>Make quizzes in small groups about the topics you choose. Try using the most of the potential given on the app. Some suggestions: Eurovision, sport clubs, food, languages...</p> <p><b>Part 3: Solving the quizzes, results analyses followed by discussion about difficulties and providing the authors with a feedback (35 minutes)</b></p>
Tips, recommendations for the trainer/facilitator	<p>Be present. Check to see if the participants are comfortable and have understood what they need to do</p>

### Part 03: MATERIALS ABOUT THE TOOLS OF GAMIFICATION TO CHECK OUT AT HOME

**GROW video tutorials:** <https://grow-project.eu/video-tutorials>

**Test your knowledge by answering the questions of the GROW quiz:**  
<https://grow-project.eu/quiz>

## Module 06 Gamification assessment and evaluation methods (badges, self-assessment, quizzes, etc)

### INTRODUCTION

This module is designed to act as an introduction to gamification assessment and evaluation methods, used in most used e-learning tools and softwares.

The module contains a short theoretical part followed by relative exercises that can be used in Trainings of Trainers, or trainings for youth workers and educators and ends in a set of self-directed learning and self-assessment activities.

The objective of this module is to achieve the following learning outcomes:

TOPIC	Knowledge	Skills	Attitude
<b>Gamification assessment and evaluation methods (badges, self-assessment, quizzes, etc)</b>	Knowledge of different gamification assessment and evaluation methods	<ul style="list-style-type: none"> <li>Ability to choose the assessment and evaluation methods that best fit the activities and the learning objectives</li> <li>Ability to adapt existing assessment and evaluation methods to fit specific activities and target groups</li> </ul>	Awareness of the importance on using appropriate assessment and evaluation methods in any gamification activity!

## **PART 01. INTRODUCTION**

The fast development of technologies and changing of students' way of learning requires involvement of different teaching and assessment approaches enhanced by information and communication technologies. One of the trends in contemporary studies in education is application of educational computer games and gamification. The following module will introduce to e-learning environments/Learning Management Systems (LMS); assessment, including peer assessment and self-assessment; and gamification and educational computer games.

### **1.1. Gamification and educational computer games**

In today's highly dynamic and technological world, education systems need teaching and learning tools to be more efficient. Integration of ICTs in educational activities and emergence of e-learning platforms for learning and teaching activities in education system is a solution. E-learning covers thus both the so-called e-learning defined in as "learning activities and teaching via different electronic media" and "using information and computer technologies to create learning experiences". Practice shows that, depending on specific educational needs, different pedagogical approaches, supported by appropriate technological means, can be used. Gamification is an example of a new and modern trend in education that, with the help of ICT, can organize an interesting, emotionally engaging training tailored to the expectations and interests of "digital native" students. Generally, gamification means the use of gaming elements in the learning process. Gamification, focuses not on a learning game, but on creating a game experience in a certain learning content or activity. It applies gaming elements and mechanics that affect students' emotions, feelings, thoughts, and behaviors in order to achieve the set learning objectives. Some of the most common and popular elements are: earning badges, points and awards; passing through levels and telling a story; leader boards and ranking; feedback; challenges; competition, and so on.

Even Gamification has been extended all around the world in Higher Education institutions and at primary level in education systems, it still remains a new concept and has not yet been explored well enough. In fact, there is still no definite and unanimous opinion of how many and what its elements are. Educational computer games are aimed at learning or assessing and evaluating knowledge of a given subject, related to the achievement of certain learning objectives.

Gamification and educational computer games can be applied both at the micro level - to realize a single learning activity such as creating problem situations, forming concepts, checking and evaluating knowledge and skills, etc.,- and at macro level - realizing a whole topic from the content, section or whole course-.

## **1.2. Assessment in education and in e-learning environments**

There are basic principles of assesment which can be categorized as follows:

- 1.Appropriate assessment in strengthening and retention of information
- 2.Assessment can identify areas of strength areas wich need treatment
- 3.Assesment can offer a sense of a constant approach to elements within a curriculum
- 4.Assesments can promote student autonomy by encouraging students' self-evaluation of their progress
- 5.Assesments can motivate learners to have goals
- 6.Assesments can evaluate teaching effectiveness

Assessment of learned modules is a driving role in any educational processes. Two types of assessment can be identified:

- a) Normative referenced: examination which establishes a learner's achievement compared to other learners.
- b) Criterion referenced: it aims to identify the achievement of the individual student in relation to the set learning objectives. The criterion referenced assessment sets a cut off to determine whether the learning objectives are achieved or not in reference to the learning objectives.

By analogy with the elements of gamification, badges together with leader boards realize a normative assessment. Assigning badges or points together with moving to the next level when reaching a certain number of points or collected badges as gamification elements realize criterion referenced assessment.

Knowledge and skills assessment can be done to establish the entry level for learners, formative assessment , summary assessment. It can be carried out as well by lecturer, independently by student, with self-assessment criteria set in advance, be peers when working on an individual or group project- peer assessment. It is now possible to implement knowledge and skills assessment in an e-learning environment not only through a test with different types of questions but also through collaborative activities such as a wiki, blog, workshop. It has been noted that MOOCs (Massive Online Open Course) students lack of motivation and commitment when performing a peer assessment. A solution could be a gamified model peer assessment.

### 1.3. Tools and types of self assessment

On the following section implementation of self-assessment, peer assessment and assessment in e-learning environments through gamification will be explored.

- System integrated – delivered with basic distribution of the LMSs. By default, the basic distributions do not include any educational games but have some of the gamification functionalities integrated in the core. Moodle supports two categories of badges as a core functionality: 1) Site badges - available to users site-wide and related to the site wide activities. 2) Course badges – given to users enrolled in the course and related to the activities within the course. Both awards could be made manually by the tutors or automatically, and are compatible with Mozilla Open Badges
- System's specific extensions – capabilities to add gamification functionalities and educational games as extensions (modules, plugins) developed in a specific for the particular LMS way, that cannot be used in another LMS. Moodle has a wide set of developed system specific extensions named plugins grouped internally as blocks and activities.

**a. *Level Up!*** is a free of charge plugin that enables extended gamification capabilities like automatic points awarding, precise setting of amount of points that students receive for their actions, leaderboard to enhance competitiveness, displaying students' current achievement according to next level, levels and points they require.

**<https://levelup.plus/>**

**b. *Game plugin*** provides set of games to be included as course activity – hangman, crossword, cryptex, millionaire, Sudoku, Stash is directed to encourage students' interactions with course activities by giving items as prizes they can collect. Also, the plugin shows a block with the current student's collection. This plugin is not so suitable to be used – in order to include items some code copy-paste is needed. The plugin can be used only for self-assessment.

**[https://moodle.org/plugins/block\\_stash](https://moodle.org/plugins/block_stash)**

**c. Quizventure** is a plugin that displays the quiz questions and the possible answers falls as space ships and the learners have to shoot the correct one. The plugin can be used for assessment and self-assessment.

[https://moodle.org/plugins/mod\\_quizgame](https://moodle.org/plugins/mod_quizgame)

**d. Stash** is directed to encourage students' interactions with course activities by giving items as prizes they can collect. Also, the plugin shows a block with the current student's collection. This plugin is not so suitable to be used – in order to include items some code copy-paste is needed. The plugin can be used only for self-assessment.

[https://moodle.org/plugins/block\\_stash](https://moodle.org/plugins/block_stash)

**e. Mootivated** (for schools) and Motrain (for corporate training), are mobile apps that encourage student/employee effort for learning in Moodle. Virtual coins (e.g. points) are earned for passed activities and/or content. Learners can spend coins in the app for example to update the personal avatar or to buy something from virtual store. These plugins can be used for self assessment.

<https://moodle.org/plugins/?q=mootivated>

[https://moodle.org/plugins/local\\_mootivated](https://moodle.org/plugins/local_mootivated)

**f. Ranking block** tracks the activity completion events and gives points according to the criteria for all activities the teacher wants to monitor. This plugin can be used for self-assessment by usage of ranking between learners.

[https://moodle.org/plugins/block\\_ranking](https://moodle.org/plugins/block_ranking)

One interesting solution of the problem with peer assessment in Moodle - Tool for awarding badges could be to use a plugin that implements set of badges that could be awarded by students to students and in this way supports peer assessment of the software projects

- Standard-based extensions – extensions developed according to SCORM, xAPI, and LTI specifications. These specifications are open and free. By default, this approach grants interoperability of extensions between different LMS if they support these specifications.

**a. SCORM (Sharable Content Object Reference Model)** is created and maintained by ADL (Advanced Distributed Learning) Initiative. Learning content developed with respect to this specification can include educational computer games or implement gamification functionalities.

The learner's progress can be kept while the learner takes breaks during the learning process or during playing the game. Also the test scores achieved by the learners are reported to the LMS.

<https://scorm.com/>

**b. LTI (Learning Tools Interoperability)** is a specification created and maintained by the IMS Global Learning Consortium. Its primary purpose is to connect securely learning platforms (LMS or portals) with external learning applications and tools in a standard way. LMSs that implement LTI can use external content and services, and can receive assignments and grade data from external assessment tools. Shortly, according to LTI specification we have two sides LTI provider and LTI consumer (LMS) Up to the LTI 2.0 SCORM was preferable for implementation of educational computer games in LMS due to better capabilities for learner's actions tracking.

<https://www.imsglobal.org/activity/learning-tools-interoperability>

**c. xAPI (Experience API)**, also known as Tin Can API, is a specification maintained by the ADL Initiative. The xAPI allows creation of the e-learning ecosystem in which LMSs and different applications can share data about learner performance and store this data in a LRS (Learning Record Store). Instead of wide variety of user actions in LMS, xApi can track activities in simulation environment or in a mobile app, and personal or team performance in educational computer game. Information stored in LRS can be returned to LMS for grading purpose.

<https://xapi.com/>

## **PART 02 Gamification assessment and evaluation methods (badges, self-assessment, quizzes) - TRAINING ACTIVITY**

This part of the module contains a comprehensive learning activity on different self-assessment tools and evaluation methods. The aim of this activity is to offer and train students on using different assessment tools.



<b>TITLE OF THE SESSION</b>	<b>Gamification assessment and evaluation methods (badges, self-assessment, quizzes, etc)</b>
<b>Approximate length</b>	4 hours
<b>Group size</b>	up to 30 participants
<b>Equipment, materials &amp; space needed</b>	<p>A4 paper  Pens  Computer  Moodle Access  Plugging  Coloured markers  Magazines  Internet Access  Laptops/smartphones  Projector/screen  Big space  Tables (at least as many as the groups formed) and chairs</p>
<b>Objectives</b>	<ul style="list-style-type: none"> <li>• To introduce students to different assessment methods used in teaching and learning</li> <li>• To support participants discovering new tools and softwares used for self assessment</li> <li>• To practice using tools and softwares</li> </ul>
<b>Detailed description</b>	<p>The session is divided in different parts.</p> <p><b>Part 01: Introduction to gamification and assessment</b></p> <p><b>What is Gamification? What is self assessment?</b></p> <p>During this part, Principles of testing and assessment will be discussed with students, and the purpose of assessment. Several videos will be shared and discussed during 30 min</p> <p><a href="#">Assessment in Education: Top 14 Examples - YouTube</a>  <a href="#">The Principles of Testing and Assessment - YouTube</a>  <a href="#">Purpose of Assessments: The Why? - YouTube</a></p>



	<p style="text-align: center;"><b>Part 02: Assessment in education and in e-learning environments</b></p> <p><b>Step 01:</b> A presentation will be held by the facilitator introducing assessment tools and softwares (1 hour)</p> <p><b>Step 02:</b> Give to each group a method/tool and they develop it (1 hour)</p> <p><b>Step 03:</b> Each group will perform a small presentation introducing it (1 hour)</p> <p style="text-align: center;"><b>Part 03: Discussion and conclusion</b></p> <p><b>Step 01:</b> Each group will propose pros and cons for each tool with PostIts (10 min)</p> <p><b>Step 02:</b> all participants will add those Post Its on a: needs, facilitates, improve column (10min)</p> <p><b>Step 03:</b> all participants discuss results. (20 min)</p>
<p style="text-align: center;"><b>Tips, recommendations for the trainer/facilitator</b></p>	<p>Be present. Check to see if the participants are comfortable and have understood what they need to do.</p> <p>If needed, give them more materials to review, such as articles, youtube videos, guidebooks...</p>

**PART 03 Gamification assessment and evaluation methods (badges, self-assessment, quizzes) - SELF-DIRECTED LEARNING ACTIVITY**

Read carefully the case study on Gamification in Language learning. Then, design your own gamification self assessment tool to be used in Local training activities as self assessment in gamification.