

GAME DESIGN FOR INCLUSION

Game On Educational Manual



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Introduction

The partners in four Cities of Learning – Barcelona, Cagliari Metropolitan, Novi Sad and Vilnius – through different initiatives carried on during the last decade, explored how game design can be a powerful tool to empower people to unlock their creative and innovative potential through a seemingly playful process. In fact, in game design everyone can get involved in the creative processes regardless of their previous experiences, competences, or confidence level.

Nexes, Idealúdica, Universitat de Barcelona, BalkanIDEA Novi Sad, Nectarus, Associazione Interculturale NUR, have experience involving young people in developing educational games and have observed significant learning impact on their personal, social, career and civic development.

Therefore, they decided to join their forces to promote the Game On project whose purpose is to scale up practices of game design aimed to foster inclusion, targeting educators, youth workers and young people in our communities.

Why this manual?

This manual was created as a joint effort of partners of the Game On project, wishing to transfer their experience and lessons learned in the field of game design with special focus on its inclusive power. The manual was created after the process of designing and testing multiple training modules. They were aimed at youth workers, educators and teachers, with the goal of empowering these target groups to facilitate game design processes with young

people - while also exploring the potential of game design for fostering inclusion and critical thinking.

So, if you are a youth worker, a teacher or another type of educator, we hope you'll find here useful information and tips on how to effectively facilitate game design processes with young people. If you are an organiser of training courses or a trainer yourself, our experience of training multipliers in game design for inclusion could help you in designing your own training courses on a similar topic.

Here you'll find out more about how we created and further implemented the training modules, as well as a set of other interesting products on "game design for inclusion" that this project yielded.

In the first couple of introductory chapters, you'll find an exploration of the power of games in education, as well as the process of game design. We'll define our framework of inclusion and provide our view of the potential of game design in education. We'll also touch on competences that young people can develop while creating games together as well as competences educators need in order to facilitate game design processes.

We explored the concept of games in education and the potential of game design for inclusion, having in mind mostly tabletop games and escape rooms. We're very much aware that the usage of games in education is a very wide field, both in terms of different kinds of games that found their place in educational settings, as well as different ways they are used. So, when writing this manual, and even when designing and starting the project, the partners agreed to focus on the processes of game design, while other related topics - like gamification in education, or game-based learning - will be left for some future research.

In the second part of the manual, we presented the process of creating training modules on game design for inclusion. Each partner gave their unique perspective and insight into implementation of the modules, highlighting their main features and lessons learned from the process.

In the final chapter, you will find conclusions, tips and links that can guide you in the further exploration and implementation of game design for inclusion.

Important concepts

Overview of the theoretical and practical knowledge needed before designing and implementing a game design processes.

The power of games in education

What makes a game a game?

Games are essential in non-formal education and are closely related to the possibility of having direct experience (individual or collective) of a process which then, with the contribution of a moment of debriefing, helps to connect the experience with a learning process.

Playing a game is an intentional process that involves a person holistically. It allows an experiment that, in reality, could be difficult or impossible. Games create “as if” reality and allow for hypotheses; they create a safe space for experimentation with players’ own competences and relationship building. This safe space for experimentation allows comparing individuals and/or groups, which also includes an emotional dimension.

Playing games opens up spaces for experimentation that allow mistakes which have consequences in the game, but don’t affect real life. Therefore, play is a structured process with specific characteristics that distinguish it from a toy or play. A game is a type of play where participants follow defined rules¹. Games can support development of competences, including following rules, adaptation, problem-solving, interaction, critical thinking skills, creativity, teamwork, etc.

Before creating a game, you need to know what it is: a game is a system within which players choose to engage in an artificial conflict, well defined by rules, which leads to a quantifiable result.

A fundamental prerequisite for a good game designer is having played a lot: the more games you know and have tried, the easier it will be for you to have reference models and create fun, pleasant, fluid and balanced gameplay.

In defining a game, we can say that the components of each game are the hardware and the rules are the software. Both can exist independently from each other and define and create different kinds of games with their specificities.

Components and rules can be combined:

- a set of components may be used with different rules,

¹ Houghton, E., Perrotta C., Featherstone G., Aston H. Game-based learning: latest evidence and future directions, Future labs, UK, available at: <https://www.nfer.ac.uk/publications/game01/game01.pdf>

- a set of rules can be used with different components.

Every game, by definition, must have a goal, a purpose, a condition necessary to win. Every player, to feel involved, must know how to win. The goal gives meaning to my actions in the game. When I enter the world of a specific game, what role do I play? What are? And what do I have to do? According to Jesse Schell the goal, to be motivating, must be concrete (i.e., understandable), achievable (the player must know that it is possible to achieve it) and rewarding (the degree of challenge must be adequate).²

Everything that is in the rules is part of the game. Everything that is not in the rules does not belong in the game. The rules are the borders and the heart of the game. They only refer to the game and never exist outside of the game.

Games are fun, engaging activities usually used purely for entertainment but they may also allow people to gain exposure to a particular set of tools, motions, or ideas. All games are played in a synthetic (or virtual) world structured by specific rules, feedback mechanisms, and requisite tools to support them – although these are not as defined as in simulations.³

How to use games in (formal and non-formal) education?

The game plays a fundamental role in non-formal education. It can be used for different purposes and, therefore, with different methodologies.

Games are important tools to support and empower formal and non-formal methods to improve the learning experience of young people while also developing further other competences such as following rules, adaptation, problem-solving, interaction, critical thinking skills, creativity and teamwork.

² Schell, J. The Art of Game Design, Burlington, Elsevier, 2008

³ Ulicsak, M. Games in Education: Serious Games, Future labs, UK, available at <https://www.nfer.ac.uk/media/1823/futl60.pdf>



Games enhance youth to learn new things by overcoming standardised barriers. While they are developing new skills, they build an emotional connection to learning. Creating emotional connections during learning is fundamental as it makes the experience concrete and transformative of attitudes.

In many games, players encounter scenarios that involve making in-the-moment decisions that let them see the impact of their choices quite soon and in a low-risk setting and then try (and try again if they falter) competences that are valuable as they go through life. Teachers in formal education, for example, can use games in the classroom to help students inhabit different perspectives and understand them as part of larger, holistic systems of thought. This system of thinking can become a good entry point for youth to experience the sense of their own agency as they weigh possibilities and consider alternate plans of action.

Because games are interactive and engaging, they may also encourage students to explore new topics and approaches to learning that they otherwise would not consider.

Receiving feedback almost immediately after each move during a game gives insight into how to improve performance positively.

Games can be used in different settings in non-formal education: as a structural part of a long-term activity, as team building, as a specific educational activity, or encouraging group dynamics.

Games are an integral part of the learning experience of youth: they help the transition from theory to practice, from Ideas to planning. Games, following different and specific aims, can foster cooperation in groups of peers or in a classroom. They can be a tool for making internal dynamics in the groups visible.

Moreover, games can serve educational purposes in the formal educational framework in a more direct way: introducing specific topics, encouraging critical thinking, and raising themes and subjects of the curricula.

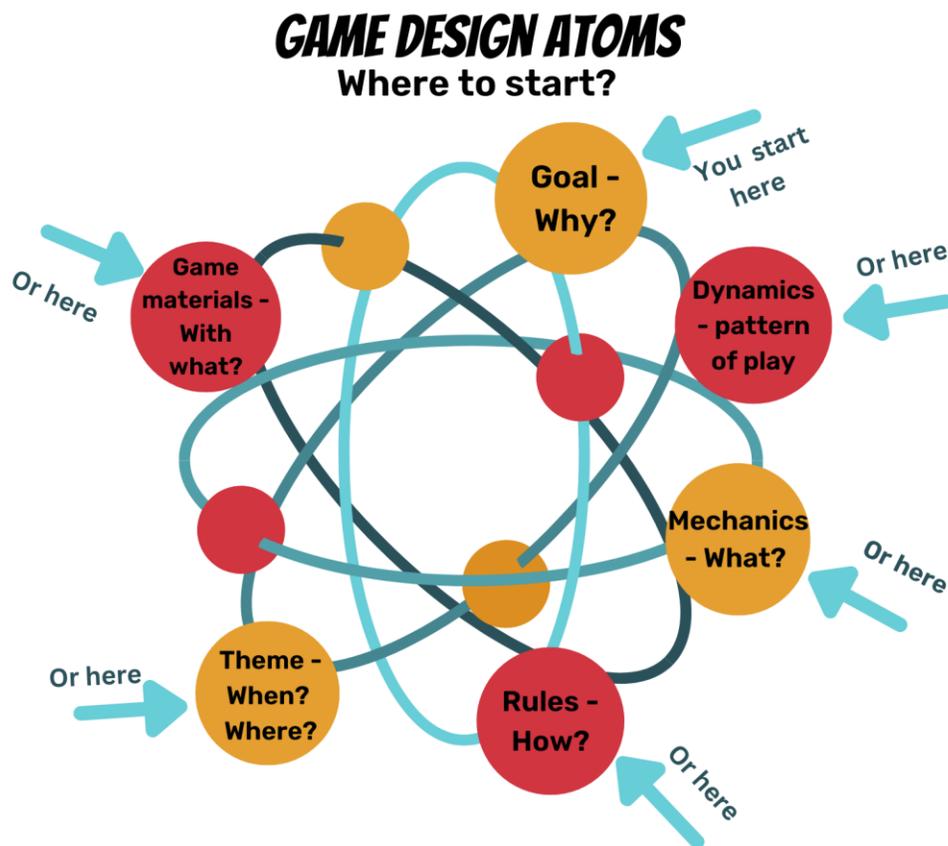
Games in education can be used within structured or unstructured contexts. Still, one must always pay attention to the purpose for which they are used, the context (appropriate to the age group, the target, the different intercultural dynamics, etc.) and that it is accessible to all participants. Both in the context of formal and non-formal education, the game is an experience of inclusion and growth: it is necessary to ensure that these elements are always guaranteed for the group or individual.

Introduction to game design

Steps of the game design process

Designing a game is not a sequential process with a set of predefined steps to be followed in a particular order. Experience tells us that there are many “entry points” to start designing a game, leading to an infinite amount of possible step sequences.

Instead of picturing a group game design process as a list of steps to be completed in an established order, a conceptualisation that better explains the process is an image of a set of interconnected bubbles containing the elements that must be defined along the process. We refer to it as “the atom model”.



Some elements are more commonly used as “entry points” to start designing a game:

- Theme: the subject the game is built around, which would affect the aesthetics of the game.
- Mechanics: rules that govern and guide the player's actions and the game's response to them.
- Dynamics: patterns of how the game and the players will evolve over time, leading to winning.
- Narrative: the game's story, including plot and characters.
- Victory condition: how to win the game.
- Components: pieces and materials of the game.

Therefore, the initial spark of a game idea can be very varied: from wanting to create a game that uses dice as a critical component, or aiming to come up with a game that promotes cooperation (as a dynamic) among the players, or wanting to design a game that is about cooking a specific dish and therefore the victory condition is to get all the required ingredients, to give a few examples.

Creating a game is an iterative process, a sequence of operations repeated in a circular path. The game designer is like a scientist grappling with various hypotheses, making experiments to verify their validity from time to time.

The recursive iteration that defines game design is divided into four phases: initial idea, formalization of the rules, creation of the prototype, verification through playtest.

To create interesting and valid games, which have their own reason to be played, we must start from the knowledge of what already exists: a good awareness of the panorama of games already published and widespread avoids unnecessary efforts and stimulates creativity towards a better definition of the uniqueness of your idea.

Creating a game means designing an experience. You have to decide which emotions you want to arouse in the players: the game is an experience in which the emotional component is fundamental, beyond rules and mechanics.

Especially for games with didactic and educational purposes, you need to set yourself clear objectives: what is our game for? What educational purpose does it have? What do I want to tell? What do I want players to experience? What do I want to teach?

Once the objectives have been set, do a search to verify that a game that does what yours should do does not already exist: analyse the competitors, examine the differences and possibly adjust the shot. Your game must have something unique, a sacred fire that makes it worth living.

There are a couple of conditionals that are good to set at the start of the game design process, as they restrict possible options:

1. Let's choose a **target**: who will have to play your game? Children, teenagers, adults, families? The age target is very important because it determines a series of factors: complexity, setting, components, graphics, etc.
2. Now let's set the **playing time**. How long should a match have? Fifteen minutes? Half an hour? An hour? It really depends on the target and the context in which we imagine using the game. We also take into account any post-match time to debrief the progress of the experience, which is very important in the educational uses of the game.
3. And finally, let's also think about **the purpose of our game**. In educational setting we need to carefully regard the learning outcomes that the game can achieve. Do we want players to learn to cooperate, understand the power of diversity, develop empathy or learn facts about certain topic? The purpose or learning goal we set will further direct us into the kind of game we want to design.

The initial idea, before moving on to the formalization of the rules and the creation of the prototype, should also answer the following questions:

- What does the player have to do to win?
- Is it a competitive, cooperative or semi-cooperative game?
- What do the players do each turn?
- What resources do they have at their disposal?
- How can they use, manipulate, earn, spend, exchange these resources?
- What choices do they have at each turn?
- What limitations must they face and which obstacles must they overcome?
- How the players interact with each other?

Having the answers to previous questions, we can now decide about the following important game elements:

- **Point system**: a system for distributing resources or for ranking players' actions based on points allocated or accumulated
- **Rules**: statements and directions that must be followed for the game to be played correctly.
- **Levels/Missions**: closed-off section of the game in which players can explore while trying to complete a particular objective.
- **Playing surface** in which components and actions are played.

Having defined those different game elements, even if some are still not fully clear, the next step is to describe the step-by-step functioning of the minimum game unit (e.g. a move, a

turn, a round); the game is played by repeating that minimum game unit, with all the possible actions and restrictions it allows.

In this project, we compiled the elements previously mentioned in a [Game Design Canvas](#) to support groups in their quest to design a game. This document served as a guide to many groups when designing a game. We found it is essential to take it not as a rigid structure; instead, our invitation is to take it as an inspiration that supports creativity to root down.

Even though many groups expect that, after defining all those elements, they have an almost-finalised game, the truth is that in most (if not all) the cases, the resulting game runs differently from what they had in mind. For this reason, managing expectations and taking the first gameplay not as a failure but as a part of the game design process is essential.

Game testing is part of the game design process. The games must go through the loop of testing, refining, and testing again many times to get a satisfactory game, meaning a product that satisfies the game designers and players.

We call this after-testing game a “prototype” because it is playable, though visually, it is still very raw. Further work on the game’s graphic design is needed to address the game aesthetics: the desirable emotional responses evoked in the players when interacting with the game system.

Further perfecting the game would involve many more testing and prototyping, which is sometimes done outside of the training/project setting, as it requires time and a great number of different people to play-test the game.

The idea-rules-prototype-playtest cycle is finished and the game is completed, when the following conditions are met:

- the game runs smoothly;
- the rules are clear and followed without doubts or mistakes;
- new players quickly understand how the game works without much difficulty;
- the vision of the game and the experience that the creative group had in mind are mirrored and repeated on regular basis by the players;
- the reactions and feedback about the game during the playtests are consistently positive.

In this process of designing a game, a couple of tips that support the groups in their process are a) schedule breaks and b) do not get too attached to a particular idea they have: instead, be ready to “kill your darlings” and let go ideas that may be great but do not make much sense in how the game develops.

Designing a game with a group may be a smooth process or a very frustrating one. In any case, reflecting upon individual actions, decisions, and group dynamics will support

participants in this experience to extract meaningful learnings beyond the game design process.

Game design in education

This chapter highlights the context and the purpose of facilitating game design with young people in the Game on project, which is **education**.

Game design is often associated with commercial or small manufacturers producing games, mainly for informal moments and socialising with others. At the same time, games themselves are quite often used as methods of learning and education (particularly in a non-formal educational context). However, Game on wants to highlight the potential of game design in education and not just focus on utilising existing games for learning purposes.

This need and desire come from the consortium's extensive experience in implementing the game design in educational contexts, which revealed that it has a powerful potential to **empower** both those implementing the process and those participating in it. And **empowering participants/learners is one of the essentials of education**. At least inclusive and transformative education.

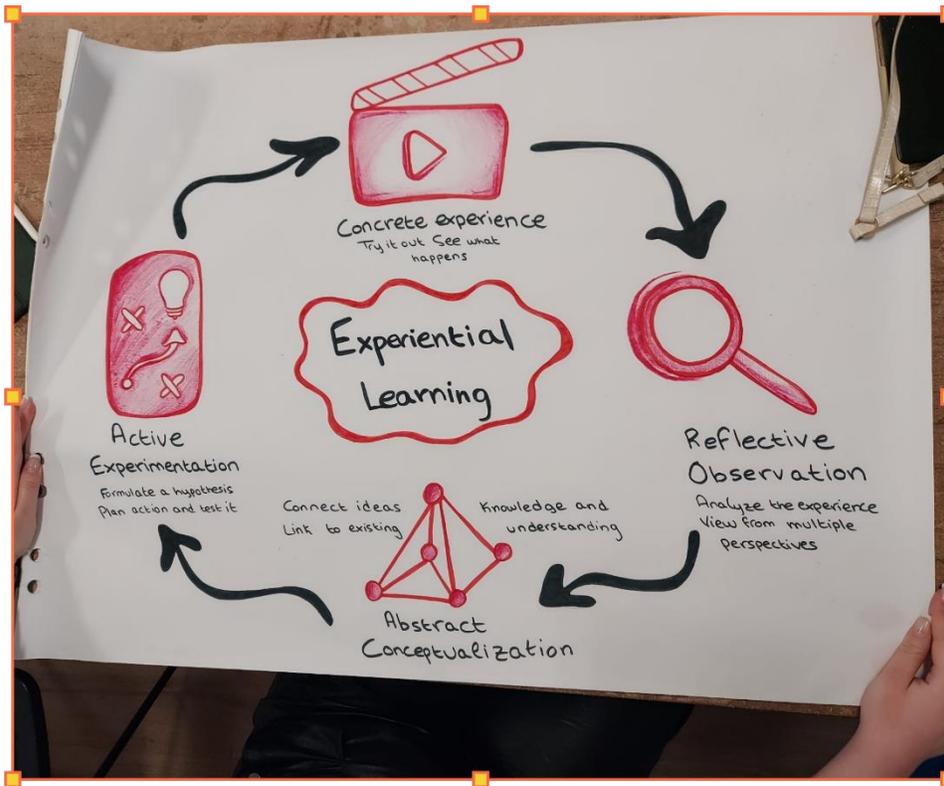
To explore how game design fits in education, Game on focused on **non-formal education processes** while extending the context to encompass different educational environments and realities (schools, youth clubs, international learning mobility projects, etc.). Besides being the consortium members' core expertise, it became clear through the project that **game design seems to be highly compatible with non-formal education principles**. Some of the core aspects of game design: playfulness, freedom of choice, learning with and from the group, adapting the process to different needs and competences, self-reflection, etc. are, in fact, core principles of non-formal education. Those and others can be described in T-kit 6 "Training essentials"⁴. **In fact, the basic premise of the Game on process is that the game design (including games and playing) is inherently non-formal in its nature and the learning that takes place in it as well.**

To support this premise, game design is also an authentic example of the **experiential learning cycle**⁵, making the game design process the central experience, which afterwards is processed to extract the learning and insights about oneself, others and the world. This

⁴ T-Kit 6: Training Essentials, available at <https://pjp-eu.coe.int/en/web/youth-partnership/t-kit-6-training-essentials>, last accessed October 21, 2022

⁵For more information, visit: <https://experientiallearninginstitute.org/resources/what-is-experiential-learning/>, last accessed October 21, 2022

learning is later used for further development, and insights gained to guide experimentation in similar situations in the future.



That said, the consortium's experience was that the identified principles and process (of game design and non-formal education alike) could be designed and implemented in different educational contexts where young people's learning takes place. And to explore those different contexts, it was understood that research needs to be made to explore some examples of implementing the game design in educational contexts, how it is embedded into them, which competences are being developed, etc.

The first step in this process was the **interviews**, which were later turned into podcasts, with different facilitators of game design who implemented their process in different contexts: Escape Racism; Nature in the Hands of Youth; Mission Z; Manipulator; Like you; Go Deep; Games that change the world; Exploreve; Escape games; EduGaming⁶. Besides being a great source of learning, the experiences captured in the interviews served as the ground on which MeMos were developed: **Methodological Models to structure the game design process**⁷ (in educational settings) with young people to promote social inclusion and transformation.

⁶ You can listen to the podcasts on <https://www.citiesoflearning.net/gameon/>

⁷ More details about Methodological models you can find in annex of this manual

METHODOLOGY MODELS CLASSIFICATION



Three key pillars/ specific dimensions of the MeMos are as follows:

- The setting of the development of the project
- Phases of the projects where young people are involved
- The final purpose of the project

Regarding the **setting**, all models fit either in a formal or non-formal setting (context). However, they are further layered out, depending on the duration of the process, local/national/international dimension, etc. It is essential to highlight that it was still possible to find common elements of game design and those principles of non-formal learning processes across different contexts.

The phases are linked directly to the **participation of young people**, which is one of the key principles of non-formal learning. In other words, the extent to which young people are involved in the game design, whether they initiate the process themselves or are consulted, etc. For those used to facilitating processes with young people in a participative way, the good news is that it would be very easy to adapt this dimension to their own game design reality.

The final purpose of the game design process is the third essential element. Like in any other process of education, it fits the **objectives of the process, intertwined with the learning needs**.

					
To develop competencies related to inclusion		To learn about game design		To create a game that promotes social inclusion	

What is important to highlight is that throughout the Game On project, it has become clear that **the game** has to have an essential place in the process and game design is arguably less powerful if there is no concrete outcome. The creation of a game can be very empowering, and the game often acts like a glue to keep engagement and inclusion.

Connected to the purpose (as well as learning needs), the game design process is grounded in the **competence-based approach**. In other words, which concrete competences should a game design process develop were essential when thinking about how to plan and facilitate it. The chosen competences were focused on supporting the inclusion of young people and (in the MeMos) clustered into two groups:

<i>PERSONAL COMPETENCES</i>		<i>SOCIAL AND CIVIC COMPETENCES</i>	
Creativity	● ● ● ● ●	Collaboration	● ● ● ● ●
Resilience	● ● ○ ○ ○	Involvement	● ● ● ● ●
Problem Solving	● ● ● ● ●	Respect	● ● ● ○ ○
Adaptability	● ● ● ● ●	Empathy	● ● ● ● ●
Communication	● ● ● ● ○	Democratic Decision Making	● ● ● ● ○
Critical Thinking	● ● ● ○ ○	Active Citizenship Practices	● ● ● ● ●

Of course, this list is not exhaustive but it is a good start when considering which particular competences should be at the core of designing and facilitating the game design process. Because, once again, depending on the context and the purpose and level of young peoples' involvement, the competences that are being developed will also differ.

Game design for inclusion

Inclusion and critical thinking

Inclusive societies are more developed, because they are enriched by the participation and contribution of all their components: they are more peaceful, balanced, colourful, and – in the end - democratic.

Educators play a crucial role in promoting social inclusion in our communities. Nevertheless, they are facing challenges to gain the involvement of young people for different reasons. Lack or ignorance of opportunities and other major obstacles (like vulnerability or discrimination, for example) sometimes make it difficult even the first step of this process, to reach young people.

If and once reached them, the challenge is how to attract and involve them in a learning process. Here a lot of possibilities come into play: the educator can promote educational approaches that are inclusive; can foster inclusion competences of young participants; can co-create activities/products that promote inclusion in the community. For these purposes, it's important to choose a methodology that can attract them and bring them on board for a longer time.

Game design should be one of these methodologies as it's attractive and can combine – and, at the same time, promote – participation and inclusion.

A game design process can and should be used as an inclusion tool. According to our experience, it certainly helps to engage diverse target groups at the local and international level and promote critical thinking. Members of diverse groups usually incorporate their backgrounds, experiences, ability, heritage, and culture into their game development process. At the same time, including diverse target groups and teamwork during the development process grows a sense of empathy.

But... what do we intend for inclusion, social inclusion, and critical thinking?

Here below you can see some definitions, result of Game On partners' discussion.

Inclusion

Inclusion means promoting the participation of all people involved in a learning process, removing participation barriers for individuals and groups with lesser opportunities, and taking diversity among them as an asset.

Social inclusion

Social inclusion is the process of improving the terms on which individuals and groups take part in society: improving the ability, opportunity, and dignity of those diverse or disadvantaged based on their identity or condition.

We can talk of social inclusion when the inclusion, applied and promoted among the beneficiaries of the project activities, is creating the conditions for a more comprehensive inclusion impact on other individuals and groups (through actions of dissemination and cascade multiplication of learning processes) that are fostering and improving their capacity to take part in society in the future.

Critical thinking

For us critical thinking is strictly connected with the process of promoting inclusion, as it implies widening the perspective of individuals' realities, questioning one's beliefs, ways of acting and given realities.

To promote critical thinking, we assume the central role of empathy, and we recognise the importance of questioning oneself and others. We consider diversity a value to be managed by providing a safe space for sharing and exchanging.

To understand better the context and challenges that drove us to promote inclusion through game design processes, have a look at the *Inclusion papers* in the annex. There, you can find a more detailed description of situations related to inclusion and critical thinking in each Game On county. Each partner also conducted small-scale research with the participants of the training module tests that helped to identify: 1) the main inclusion challenges and discrimination issues at the national/regional level; 2) the development and lack of critical thinking in the countries considered; 3) the practices used by educators and youth workers while working with their target groups to address those challenges.

Competences young people can develop through a process of game design for inclusion

As already mentioned in previous chapters, through the mapping of European good practices, we identified 12 key inclusion competences which became part of the Methodology Models. These competences became one of the starting points when developing training modules for youth workers, teachers and other educators. When defining learning objectives of the training module for those who will be future facilitators of game design with young people, we always had in mind the learning that happens when a group of young people go through a process of creating a game together. Through the implementation of modules we surely noticed how the process of game design can affect the development of other skills, attitudes, and knowledge as well. However, when considering

our main goal of fostering social inclusion and critical thinking of young people through game design, these are the main competences we decided to focus on.

We distinguished two types of competences:

- Personal competences
- Social competences

Short descriptions and explanations for each of them can help in gaining further insight into the potential of game design in education.

Personal competences

- **Creativity**

Capacity to generate **new ideas** and concepts from **associations between known ideas and concepts**. Creativity allows providing **new solutions** to challenges, problems and situations.

- **Resilience**

Capacity to **overcome adversity** while being **flexible** enough to creatively **adapt to change**. Resilience helps **transform difficulties into opportunities** for learning, growth and development.

- **Problem solving**

Capacity to accurately **analyse a situation, assess its possibilities and identify a positive solution**.

- **Adaptability**

Capacity to **modify the behaviour** with positive vision and **adapt to different situations** and people quickly, appropriately and without fears.

- **Communication**

Capacity to **interact efficiently and assertively** with other people or groups to exchange information. This capacity also includes **active listening** and promotion of **positive relations**.

- **Critical thinking**

Capacity to **widen the perspective** of individuals' realities, **questioning one's beliefs, ways of acting and given realities**.

Social competences

- **Collaboration**

The capacity of **working cooperatively** with others to get something done, to **achieve a common purpose** or mutual benefit. This competence includes teamwork and accepting **feedback**.

- **Involvement**

Capacity to **support and implement decisions**, commitment to **achieving common goals** and fulfil the undertaken commitments.

- **Respect**

Capacity to **accept oneself and the others**, to identify and **recognize individual differences without discrimination** and act under the premise that **all people have the same rights**. This competence includes the capacity to build trusting relationships based on honest behaviour.

- **Empathy**

Capacity to understand another's feelings, difficulties, wishes, motivations and behaviours and to re-experience them yourself without judgement.

- **Democratic decision making**

Capacity to choose one or another option in a **joint and consensual way** with other people and accept the result. This capacity includes the positive assessment of the values and opinions of others and the search for the **common good above the individual good**.

- **Active citizenship practices**

Capacity to **interpret social phenomena and problems, interact with other people** and groups according to established norms to **promote their solution** and act to **promote democratic values**.

While these competences are the ones, we've discovered through analysing different game design practices in education, not every process of creating a game with a group of young people will lead to development of all of them. When preparing to dive into creating games with groups, you can focus on one competence or several of them. This little model of competences can help in designing the learning experience through game design, as well as assessing it during and after implementation.

To help facilitate the game design process as a learning experience for young people, we've also developed a gamified tool, the "**Incluship**", which allows youth workers, teachers and other educators, to facilitate (self-)assessment of competences young people gained. A detailed description of the tool and how it can be used in educational processes can be found in the annex to this manual.

Competences for facilitating a process of game design for inclusion

There are several areas of competence that game design requires. There are also plenty of opportunities to develop competences by participating in the game design process.

What are the competences that someone requires to be able to facilitate game design processes that aim at inclusion, participation, and critical thinking development? First, we suggest [The competence model for youth workers, its attitudes, knowledge, skills, and behaviours](#) while working with the youth groups. Please remember that this Model is not meant to be seen as a 'must-have' list of competences.

In the framework of the Game n project during International training for youth workers, teachers, and educators, we did small-scale research that helped us identify a set of 10 skills, knowledge, attitudes, and behaviours that are needed to facilitate the inclusive game design process.

- **Knowledge of the game design methods**

To facilitate the inclusive game design process, you should have knowledge of game design methods and practices. For example, you can follow the '5 stages' method explained in the booklet "[Road book for the playitects](#)". Also, to get more familiar with game design, you can complete [Learning Playlists prepared by our project team](#).

- **Flexibility and adaptability**

Ability to modify the behaviour with a positive vision and adapt to different situations and people quickly, appropriately, and without fear.

- **Creativity**

Ability to generate new ideas and concepts from associations between known ideas and concepts. Creativity allows providing new solutions to the challenges, problems, and situations to be faced.

- **Communication**

Ability to interact efficiently and assertively with other people or groups to exchange information. This capacity also includes active listening and promotes positive relations.

- **Management skills**

It is a set of skills required to plan, organise and implement the inclusive game design process. Also, it includes the ability to manage the group you are working with according to the needs it has during the game design process.

- **Empathy**

Ability to understand someone else's feelings or experiences without judgement.

- **Respect**

Capacity to accept oneself and others, to identify and recognise individual differences without discrimination and act under the premise that all people have the same rights. This competence includes the capacity to build trusting relationships based on honest behaviour.

- **Patience**

Ability to remain calm when dealing with a difficult or annoying situation, task, or person.

- **Critical thinking**

Ability to think clearly and rationally, understanding the logical connection between ideas or/and actions.

- **Problem-solving**

Capacity to accurately analyse a situation, assess its possibilities and identify a positive solution.

Training modules on how to promote game design for inclusion

How we've designed the program of training modules for youth workers, teachers and educators, how each partner tested the module and what are their main takeaways and conclusions.

Background of the process – how the modules were designed

The process of creating the structure of training modules for educational game design started at the beginning of the Game On project – with researching examples of practices at a local, national and also European level. This process is explained in more detail in the chapter [Game design in education](#).

The examples of game design processes, and the [Methodology Models](#) developed from them, served as inspiration and a starting point for creating educational modules for game design.

After the first phase of the project, the actual process of designing educational modules followed 6 steps:

- Defining the flow of the module – list of topics that participants need to go through and their order;
- Defining learning objectives for each topic – what do we think is important for participants to learn during the module;
- Defining the approach and structure of the module for each partner;
- Defining methods to use to cover each learning objective;
- Testing the modules with different target groups;
- Learning from the results of the testing and conceptualising experiences in this Manual.

The first two steps were done jointly by all partners while defining the approach and methods, and testing was done by each partner separately. This way, we got results from trying out different possible ways to educate youth workers, trainers and teachers in inclusive game design.

The flow of the modules was very similar for each of the partners. At the same time, it diverged in several points, depending on the target group. Here is the list of topics with learning objectives for each of them:

Name of the topic	Learning objectives
Introduction	Getting to know the group and each other; Getting familiar with the idea of the project and

	training course.
Group building	Fostering stronger relationships and cohesiveness in a team; Improving team communication effectiveness.
What makes “game” a game	Discussing the differences between different types of game experiences (game/play/gamification) Learning about the basic components of a game (rules, winning condition, points...) Analysing existing games from different design angles (see Game Design Atoms)
Dissecting existing games	Discovering some of the most common game mechanics that exist behind tabletop games (introducing a few incorporated in Escape Rooms and videogames) Reflecting upon the different gameplay experiences that different game mechanics and themes bring
Game as an experience (for youth workers)	Discovering the four steps of the Experiential Learning Cycle Experiencing the steps of ELC through an existing game Applying the ELC model to game experiences
Game as an experience and basics of non-formal education (for teachers)	Providing the basics of NFE; To introduce the Experiential Learning Cycle Reflecting and providing an educational framework about NFE as gamification of learning

Games and game design in education (for youth workers and trainers)	<p>Designing a process in which participants create an educational game experience</p> <p>Finding (through examples) common “speed bumps” in facilitating a game design process</p>
Games and game design in education (for teachers)	<p>Reflecting on the role of games in the educational processes in daily work;</p> <p>Providing teachers with examples and practices</p>
Essentials of the game design process	<p>Exploring the essentials of the game design process</p> <p>Getting familiar with the main steps and process of the game design</p>
Experiencing the game design process	<p>Experiencing the game design process in the group</p> <p>Reflecting and understanding the different approaches to the game design process</p>
Participation and/or inclusion in learning	<p>Defining actions and strategies to manage diversity in a group process and overcome participation barriers</p> <p>Understanding the benefits and drawbacks of promoting participation in a group process</p>
Inclusion through game design	<p>Reflecting upon the concept of Inclusion, discovering similarities and differences in participants’ understandings and approaches</p> <p>Defining strategies to make more inclusive the group process of designing a game</p>
Competences for inclusive game design	Identifying the needed competences to design games and facilitate game design

<p>Understanding the game design process in education (for youth workers and trainers)</p>	<p>Creating a game experience outline following Kolb's Experiential Learning Cycle</p> <p>Exploring ways in which game experiences can be facilitated to include reflection, generalisation and implementation</p>
<p>Understanding the game design process in education (for teachers)</p>	<p>Getting familiar with Kolb's Experiential Learning Cycle</p> <p>Exploring ways in which game design experiences can be based on the principles of Kolb's cycle</p>
<p>Introduction to Methodology Models</p>	<p>Getting to know the 7 Methodology Models of Game Design in Group</p> <p>Classifying group processes participants know into the MeMos</p> <p>Identifying the more convenient MeMo to apply with their group of (young) people</p>
<p>Evaluation and follow up</p>	<p>Planning how to use gained competences in practice.</p> <p>Receiving feedback from participants about the content of the course (programme)</p> <p>Allowing reflecting on gained experiences and knowledge.</p> <p>Checking if participants meet their expectations and learning objectives.</p>

The experience of the partners

In the following section, each partner presents its approach to implementing training modules on game design for inclusion, giving information about the target group and the results of their testing. Each partner's experience also includes conclusions on lessons learnt during the testing of the modules.

Nexes Interculturals, Spain

Target group

The first training implemented by Nexes was organised in collaboration with the Educational Resource Centre (CRP-Les Corts). This centre supports many educational centres in its area, providing training and materials for primary and high schools.

Fifteen participants came mainly from those schools, and 90% were teachers, most of them in high schools.

The second training was done in collaboration with Escoltes Catalanes (a scout organisation). The groups we targeted were youth workers and non-formal educators.

Participants got the information through the scout movement, and we registered a higher degree of diversity of backgrounds in this small group of 5 participants: we had 1 primary school teacher, 1 after-school educator, 1 language teacher in an academy, 1 adult educator, and 1 social worker.

Context and format of the module

Both training courses took 5 (full or half) days, in presence but not residential.

How was inclusion considered throughout the module implementation?

A session specifically designed to address the concept of inclusion from a theoretical and a more practical perspective was introduced on the first day of each training.

During the game design process, during the breaks, the groups reflected and self-evaluated their process taking into account specific competences, some of which related to inclusion and critical thinking.

On the last day, after the game design and testing, the process was reviewed, analysing it from an inclusion perspective. Participants had time to define strategies to promote inclusion when they replicate this process with their groups of young people, and they shared it with the whole group to exchange ideas and inspire each other.

Even having taken the actions mentioned above to address inclusion, in the evaluation of both local training courses, a significant number of participants expressed that the inclusion

perspective was perceived not as a core element of the training but more like an external layer.

Special features of training modules



The two 5-days training courses were gamified, meaning there was a gamified process running in the background of all the sessions, from the first training moment until the evaluation.

The gamification was designed specifically for these training courses in Barcelona, mixing the contents of the module with a game structure (theme, mechanics, point system...) based on the game “[Down Force](#)” by Rob Daviau. The gamification process included the following:

- [Speed cards](#) were given to participants for completing tasks during the training.
- The [board \(track\)](#) in which the gamified process was displayed. It was a car race, and the different teams bid to get cards, moved them on the track using speed cards, and bet on the winning car. The teams were the same as the groups that later designed the games. Two or three times a day, there was time allocated for playing the speed cards and moving the cars on the track
- [Score sheets](#) to keep track of the betting.
- [Car posters](#) relating car features with competences related to game design.
- [Special cards](#) relating competences with extra skills to be used in the track when moving the cars.

Main conclusions after testing and feedback

- Participants considered that the process of designing a game was positive and would make it easier to facilitate a similar process later on.
- The inclusion part felt like not such a core element but more like an external layer in both training courses.

- Gamification inspired in the Down Force game was assessed positively by participants.
- Resources shared and exchanged during the training were taken as a big plus.
- Dividing the game design process into 1h timeslots supported participants in their group processes.
- Participants in the first training missed a space on the last training day to ask further questions.
- Game Design Methodology Models in the first training were introduced as “museum setting” before the game design process. They remained very shallow and did not bring relevant reflections. In the second training, they were introduced after the game design process, which was better because they served to conceptualise elements from the game design process.
- Learning playlists in the Cities of Learning platform were introduced in the first training as optional activities to expand the training contents out of the training courses. They were not used by participants. In the second training course, they were introduced inside the sessions, offering time for participants to explore the platform. It worked better; all participants completed an activity and received a badge.
- In the second training, there were external game testers, which was assessed as positive by participants.

Nectarus, Lithuania

Target group

The target group of the Nectarus training modules were youth workers and teachers. The majority of the participants in both training courses were teachers or educators, mostly coming from secondary schools. However, we also had some participants from NGOs.

In the first training, we had 8 participants, 80 % from formal education institutions, and in the second 13 participants, 95 % from formal education institutions. Almost all participants were familiar with non-formal education, and more than half in both training courses had a little experience and knowledge of game design.

Context and format of the module

1st training: 5 days, residential

2nd training: 2 days, a week break (virtual consultations sessions), 2 days

How was inclusion considered throughout the module implementation?

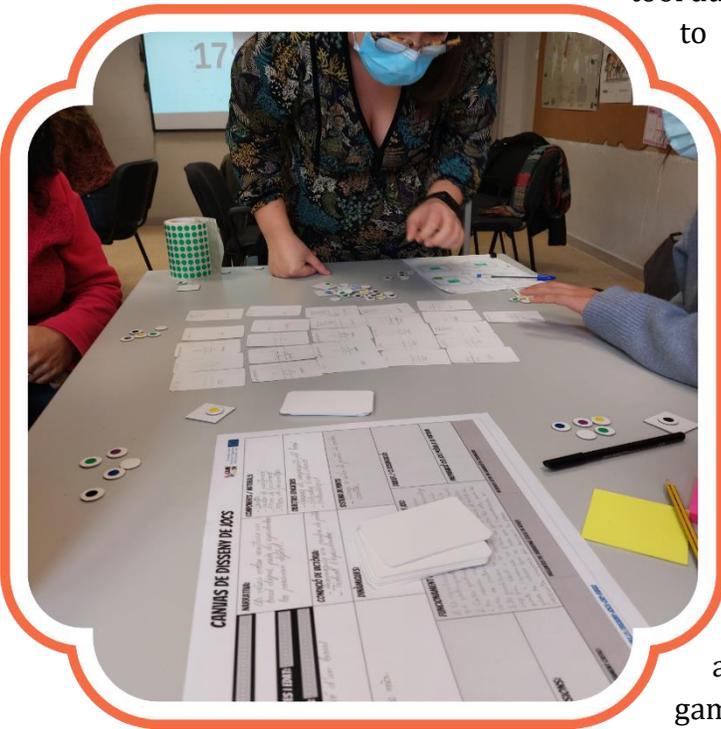
In both training courses, the inclusion concept was addressed through theoretical and practical perspectives.

The 2nd practical training workshop was implemented to help participants identify the vulnerable groups they work with daily and discuss how game design could be used as a tool for the better inclusion of the groups. At the same time, participants of the training could get more familiar with this topic using the [Learning Playlist “Game On – Social Inclusion”](#).

Overall, the biggest challenge for participants was understanding the clear linkage between the game design process and the inclusion aspect. During the evaluation phase, a number of them mentioned that the concept of inclusion in the game design process seems like another layer and is not always considered by the facilitators of the process and is not fully addressed by the participants (young people) either.

Special features of each training module

- Introducing Learning Playlists as an educational tool to support the learning experience during the training. We saw that Learning Playlists can be a perfect tool during and even after the training. It is vital to dedicate a time slot (preferable a separate session) in training and acknowledge participants to experience the playlist. It also brings a broader perspective to the participants while developing their own game prototypes.



- Experiencing complex educational board games. In both training courses, participants could experience 2 educational board games: [Mission Z](#) and [The 4 Headed Monkey](#).

- The most important part of this experience was evaluating and analysing the elements, dynamics, and game mechanics in those board games.

Analysis was done using the [Game Design Canvas](#).

Main conclusions after testing and feedback

- The prototypes of the games were mainly developed on individual bases.
- It is possible to implement such a type of training in different ways: 5 days residential, with some break in between, supporting participants via individual consultations while developing their game prototypes.
- In the 2nd training, participants had an opportunity to test different types of board games using the main elements of the game development canvas, which helped them a lot with developing their own game prototype.
- The City of Learning Platform was introduced in both training courses, but in the 2nd one, we had a practical session that helped participants to get familiar with the Learning Playlists, complete some of them, and get a badge. In the evaluation, participants pointed out that Learning Playlists are very useful materials.
- It is imperative to carefully plan the game prototype development time, check up on the participants, and have moments of 'coming back' to the whole group to see the improvements in the game development and get feedback from the rest of the group.

BalkanIDEA Novi Sad, Serbia

Target group

The intended target group for BINS' training modules was youth workers and non-formal education trainers. As many of the people in the youth field in Serbia fit both categories, we decided not to make separate modules for these two target groups, also considering that most of them should have similar knowledge about non-formal education, experiential learning and inclusion. However, some candidates who applied for the modules came from the formal education system. Still, most had some experience in non-formal education and youth work, at least as volunteers, so we accepted their applications.

At the end, we had two diverse groups of participants in each module. They had different levels of experience in youth work and non-formal education, but also in playing and designing games.

Context and format

Both test modules were residential training courses, 5 working days each (30 working hours). Participants from the three groups (youth workers, trainers and teachers) participated in the training courses together. Where approaches differed for specific beneficiaries (students, youth attending training or participating in a short/long term program), the group was split or worked individually/in groups on approaches for their specific context.

How inclusion was considered throughout the module implementation

The topic of inclusion was first tackled by allowing participants to experience situations in which some of them were deprived of some possibilities or had different ways to fulfil their needs from others. It was done through the safe space of a board game, which proved fruitful and yielded rich discussion. This approach also turned out to be powerful for participants who had more experience in youth work and non-formal education, as well as those who are already working on topics of inclusion or have experience with diverse groups.

This session was organised before participants were put through their own experience designing a game, giving a basis for further reflection that was planned after the playtesting of the developed games. In this phase, participants were asked to reflect on their experience of creating the games and primarily focus on how included they felt.

The last days of the module were dedicated to generalising the experience of game design, with sessions about inclusion and participation, which focused on participants' practice in working with young people, exploring the possibilities of introducing the game design process in their programs and discussing the power it has in fostering inclusion. Participants were invited to reflect on how they can facilitate a more inclusive game design process with

young people. However, in practice, it is more accurate to say that they focused on the specific topic of participation rather than on the whole concept of inclusion. As there were many “firsts” during the training (most designing a game for the first time), it makes sense that participants would first focus on participation before advancing to the topic of inclusion. It also reflects many participants’ limited experience in working with diverse groups of young people. For those who did not have previous experience in inclusive programs, it was difficult to imagine and plan for an inclusive game design process.

In conclusion, both training courses ended up focusing more on participation and engagement. While participants were quite able to reflect on their own experience of being included during activities (both in the first game about inclusion, as well as during the game design process), when it came to generalisation and planning for their own practice in working with youth, it seems that thinking about inclusion as a holistic concept was a step too far. This is why at times, the topic of inclusion seemed out of place, perhaps too advanced for the participants, being forced in rather than a natural part of the program flow.

Special features of the BINS approach

BINS’ training modules were structured following the principles of experiential education.

The first part of the modules was designed to prepare participants for the experience of designing their own game, followed by a day of group work on creating a game, which was accompanied by playtesting and a feedback session.

Reflection on the experience of designing a game was done together with processing the testing and feedback received from participants and trainers.

Conceptualisation and experimentation were done in the last two days through sessions about the educational power of game design, participation and inclusion, identifying competences needed for facilitating the game design process and introducing the Methodology Models. In the last part of the modules, participants were thinking about how they could introduce game design in their work with young people and what could be its potential for inclusion.

Another unique aspect of our approach is using games as tools for covering workshop topics. It ensured that even participants with little experience playing games would have an opportunity to try as many games as possible in the short time we had together. We used easy-to-learn games and game experiences such as:

- Room Escape (custom scenario) for group building session;
- [Forbidden Island](#) for introducing players to new game mechanics and game elements (“game atoms”) by providing an “unconventional” game (other than Monopoly, Risk,

Uno etc.) as a basis for understanding game design and showing participants the power of the process within a game experience;



of the box.

- [Hellapagos](#) was used to provide the experience of handling diversity in a group (a custom [expansion deck of character cards](#) was used);
- Tabletop games of different complexity levels were introduced to give participants an opportunity to better understand different game elements;
- Other short games were presented to the participants during break time so that they could delve into new interesting game mechanics and start thinking out

Main conclusions after testing and feedback

In a practical sense, what the module managed to do well was to take the participants through the game design process, open up the possibilities that it offers and ‘infect’ participants with the game design “bug”. This boosted their engagement and kept them involved throughout the process. One of the most remarkable powers of the game design process is producing the game (regardless of how ‘advanced’ it is). It gives participants a motive and a way forward and boosts their engagement! This still does not guarantee inclusion, and we are not sure how inclusive the process would have been had the participants not been as motivated intrinsically or if they had other barriers to taking part in the training.

Associazione Interculturale NUR, Italy

Target group

The target group for NUR training modules were youth workers, trainers in non-formal education and teachers. We decided not to do separate modules for each of these target groups: the level of knowledge about non-formal education, experiential learning, participation and inclusion were quite similar even if they had different backgrounds. Even if their backgrounds differed, their interests and intentions of using the game design for educational purposes were the same. This diversity of backgrounds was exciting because it allowed many exchanges, even if sometimes trainers needed to give some clarification about basic concepts of non-formal learning.

At the end, we had two diverse groups of participants in each module. In the first training, we had a mix of youth workers and volunteers involved in several local and national projects. In the second, we mainly had teachers with cultural operators and youth workers.

Context and format of the module

The two training courses had a common kick-off online that aimed to present the program; to introduce the basic concepts of game, game design and game design in education.

The module in Elba Island (the first pilot) was residential, with participants from the island and other regions. The residential offer was prepared with the intention to have a broader group in terms of territories and to reply to the national network of organisations that were interested in the programme.

The modules in Cagliari were not residential except for one participant, and it would be important to mention that 2 participants connected online from home, where they were forced to stay because of Covid. Given the topic of our courses, NUR chose to let them participate anyway and tasked the rest of the group with including them as much as possible throughout the days, which we used as an additional exercise about inclusion and topic for reflection. The experiment went very well, according to our observation and the participants' feedback.

Both training courses continued online in two more sessions that explored the final part of the modules and the transfer.

One common session was delivered at the end to share the prototypes' development and final evaluation.

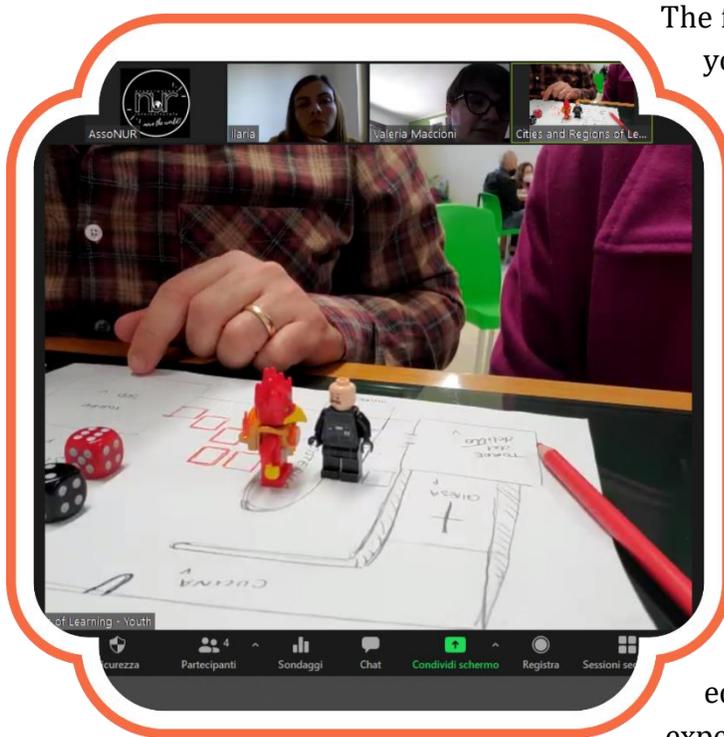
How was inclusion considered throughout the module implementation

The topic of inclusion was first tackled by sharing the understanding of the inclusion of participants and, based on this defining what inclusion was for that group. This approach

was beneficial because it allowed participants with more experience to share and bring their points of view. The input for the discussion was the outcome of the online questionnaire that allowed us to visualise the different situations and how these could be interpreted in different ways. The exercise clarifies that inclusion is not a “simple concept” to be defined and is interconnected with the local context.

The two groups had different experiences regarding inclusion: different contexts (formal or non-formal education), roles of responsibility in groups, and the possibility of concretely experiencing an educational experience of inclusion. The activity, therefore, beyond the dynamics of emergence, required a moment of consolidation of the definition of inclusion (albeit articulated) and examples in which game design can be helpful as an activator of inclusion processes.

Special features of each training module



The first activity saw a group of experienced youth workers. Most are already engaged in educational projects and have extensive experience in non-formal education. In this training, game design was used as a concrete tool for planning an existing intervention.

The second group (primarily teachers) focused on non-formal education within the formal courses and the concrete intention of developing game models to be tested in the various fields.

In both, we tried as much as possible to introduce Learning Playlists as an educational tool to support the learning experience during the training: the Learning

Playlists can be used as a perfect tool during and even after the training. We tried to dedicate a time slot in training to experience the playlist.

Main conclusions after testing and feedback

The activities made it possible to experience substantial interest on the part of the world of formal but also non-formal education on the theme of game design. Furthermore, the two activities highlighted the flexibility of the training courses adapted to different targets and

specific application contexts. The modules are very clear, and the tools that were developed are simple. They are supported by the different playlists that are an important basis for the development of the modules in terms of content and background.

Tips for designing and implementing a training module about game design for inclusion

Now that you went through the description of different training experiences about game design for inclusion, we can propose a set of conclusions, lessons learned and tips that can be useful to those of you who are planning to organise similar training courses, targeted at youth workers, teachers or other educators working with young people.

1. Know your target group

This part goes without saying for anyone experienced enough in designing learning experiences. However, it's still worth mentioning that for the topic of this training you'd need to know how interested your participants are in games, whether they enjoy playing, how many different games they played, etc. Another important aspect to check is their experience in working with vulnerable groups of young people; their understanding of inclusion and overall attitudes towards it.

Some of these you can check during the process of participants' selection and others you'll have to adapt to throughout the course of the training.

2. Formal, non-formal or mixed setting

This point is connected to the previous one, as it is also about knowing your participants. You'll need to adapt your approach depending on whether you're working with teachers, or youth workers and/or non-formal educators. They could have similar experiences in playing or even using games in their work with young people, but different perspectives on how to include game design in their setting. When introducing experiential learning as a concept, it could be rather new for most teachers (also to some less experienced youth workers), so more time should be dedicated to its understanding.

When it comes to inclusion, it might be viewed differently by the school system, to how it is understood in the youth work field. If you have a mixed group of participants, coming from both fields, facilitating their exchange of experiences and viewpoints could be quite the powerful learning process.

3. Choose your format

Having in mind the participants you want to include, as well as other circumstances (like resources you have), you can choose to adapt the training program to your needs. You can see that partners on this project used different formats, from residential 5 day training courses, local courses, to hybrid formats with some sessions done online, etc. You can read more about each of the formats in the chapter on partners' experiences and see which one would fit you the most.

You can also refer to Methodological Models when thinking about the format of your training course.

4. Give opportunity to participants to play together and analyse games

Participants might come with a love and passion for games, having played diverse and complex board games with friends or organised game nights for young people. Or, they can come interested but with only the vague memories about playing some more basic games as kids. This is why it's important to give them space to play together and "dissect" the games together. In this way you will be sure they are almost at the same level of understanding what a game is, what are the elements of a game and have at least some ideas about the game design process.

5. Creating a game together

We've mentioned it already, but we'll mention it again: the experience of creating a game as a team is fundamental for participants on so many levels. This way they better understand the process they are about to facilitate with their target group, they can see what kind of competences could be developed through it, they experience teamwork and all the beauty (and frustrations) that come with it, they can reflect on the inclusion aspects of the process from their personal perspective.

To give participants the simple task to create a playable prototype of a game in a limited time is bringing so many benefits to the learning process!

6. Tackle inclusion from an experiential perspective

We focused on inclusion in different ways, having the same goal in mind: connecting the topics and learning during the training with the help of the personal experience and the reality participants are working in. One way could be to put them in a situation, simulated through a board game, where participants experience themselves how it is to make efforts to be included or to include others (see the experience of BalkanIDEA). Another way would be to give the space for reflecting on the vulnerable groups they are working with and have participants thinking about ways to use game design as a tool for fostering inclusion (see the experience of Nexes).

7. Put more focus on the topic of inclusion

In general, inclusion should be a topic that is felt throughout the whole training course. All partners in this project struggled with it to some extent, and we think it's also because playing and designing games is so overwhelming and usually quite new for most of the participants, that they don't leave much space for reflecting on anything else. We've mentioned two ways you can do it under the previous point. Another example is using playlists (see the experiences of Nectarus and Nur, as well as in the annex of this manual for a link to playlists). Also, give space for reflecting on inclusion aspects of the experience of designing a game together, which you can follow by planning concrete activities where the process of game design can be used for fostering inclusion and critical thinking of young people.

8. Use the power of group for learning about inclusion

We cannot emphasise enough how important experiential learning is. If you work in a context where some of your participants have barriers to actively participate (which could be as simple as being COVID positive and participating online from home), it's crucial to use this opportunity for the group to learn from the real experience they're sharing together.

9. Give enough space for feedback and reflection after the game prototypes are made

The way we did it was mostly by allowing time for testing the game prototypes and leaving time for feedback from participants/players. In some cases, we found it beneficial for teams to have the space by themselves to process the feedback and reflect on the experience of creating the game. As the process itself is very often quite intensive and emotional, giving the space for people to share their feelings, as well as learning points is crucial. As it is the central experience of the training module, it's important to use it as much as possible to draw conclusions, learning points and directions for future work.

Conclusion: the power of game design for fostering inclusion of young people

Organizations and people involved in the Game On project already loved games and believed in their transformative power of both playing games and of the process of game design, which is why we undertook this endeavour in the first place. Still, analysing good practices and creating educational training modules gave us further insights into how game design can be used in education, especially to foster the inclusion of young people. So here are some of our conclusions.

There are different ways young people can be actively involved in the game design process and different phases of the process they can participate in. More about it is summarised in Methodology Models, which show that you, as a youth worker, teacher and educator, can introduce game design as a tool for inclusion and adapt it to your needs and the context of your work environment.

Another important insight for us is that the game design process, to a great extent, reflects non-formal education in practice. As such, it supports learning from experience, it can be tailored to different backgrounds and realities (thus, even further contributing to the process of inclusion) and, if facilitated well (i.e. taking participants' needs into consideration, providing structure, but also leaving enough flexibility for adaptation, designing opportunities for participants to use their diverse competences, as well as to develop them further, designing interventions that assess group participation level and ensure everyone's participation, etc.) it can lead to both personal and professional development of those involved in it.

In every format we have chosen for our testing training modules, we put the experiential learning cycle at the core of our methodology. We regarded playing the game as a central experience around which the cycle happens, but then expanding the cycle to the experience of game design for inclusion. In each of the modules, participants went through that experience themselves, which allowed for more powerful learning.

Connected to that, we understood that the game design process generates a significant amount of learning along the way, which can be expressed to competences acquired (e.g., creativity, resilience, critical thinking, empathy, etc.). This goes for both 'participants' in the process and those facilitating it. Again, more can be explored in the Methodology Models.

Training youth workers, teachers and other educators, to use game design for inclusion in their practice could be done in many different formats. The different realities of our partners and the needs of their target groups allowed us to experiment with residential courses, local courses, blended and hybrid learning, etc. Those formats allowed us to gain different perspectives and share our insights with the wider community through this manual.

Throughout the modules, we introduced many games and even gamified the whole learning process. This immersion in playing games allowed even the less experienced participants (both in terms of game design and in their general experiences in playing games) to better

understand the mechanics, dynamics and the other different features of a game. Invitation to play as many games as possible during the first few days of the modules helped participants immensely in creating their own games.

As mentioned several times in different chapters of this manual, the fact that - in the game design process implemented during the training modules - participants had a straightforward task to create a working prototype of a game, rather than just go through the game design process regardless of the results, was crucial. Initially, partners were concerned with putting so much pressure on participants to create playable game prototypes in such a short time frame. Still, this pressure, when facilitated and supported, yielded fantastic results. Not only were the participants satisfied with the prototypes that they created, but they were able to better understand all phases of the game design process, especially the emotional aspect of it. They will be better prepared to facilitate a similar process with young people they work with or to replicate the training course with other multipliers.

One reason is that the game design process with set outcome (a game prototype) is often very exciting and engaging and simply drags participants into its whirlpool. As such, it creates connections and challenges that are the basis for participation and inclusion!

At the same time, the process can also create some frustration (e.g., when the outcome does not meet the expectations or when the workload is too much), which is an excellent source of learning but can also be a reason for some participants to walk away from the process. Especially if their tolerance to frustration is relatively low. Hence, if there would be one crucial message that we would like to pass on to other facilitators of the game design process is to prepare themselves for those moments and pay close attention to when they emerge to be able to support participants to transform them into learning instead of demotivating defeat.

Through the pilot modules, the partners once again understood how the game design process enables different abilities and experiences to find its place and contribute as a whole. A key to supporting this even further is understanding the needs and abilities of individual participants and providing opportunities in the game design process for them to find their place. This insight is nothing new, as it is at the core of any participative project or process development. Still, we felt that we could never be reminded too much!

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YouTube channels on games and game design:

[Game Maker's Toolkit](#)

[People Make Games](#)

[Because Games Matter \(playlist\)](#)

[Miscellaneous Game Design Playlist](#)

[Adam Millard - The Architect of Games](#)

[Daryl Talks Games](#)

Annexes

Annex 1 – methodology models

After the analyses of the experiences, we could identify 7 common methodology models to structure the game design process with young people to promote social inclusion and transformation:



1. Participative
2. Transformative
3. Collaborative
4. Formative
5. Curricular
6. Mixing
7. Consultative

Each model is presented through 3 specific dimensions:

1. **Phases of the project** where young people are involved
2. **Setting of the project**
3. **Final purpose of the project**

Phases of the project where young people are involved include:

- **Structure of the project** includes the initiative for undertaking the project, the definition of goals and activities, the planning, etc.
- **Concept of the game** includes the specific topic of the game, the type, dynamic, etc.
- **Game development** includes the mechanics, the elements, the contents and the prototype.
- **Game testing** includes the testing of the prototype and the improvement of the game.



- **Dissemination and multiplying** includes the production, dissemination and use.

In each of the model all the phases where young people are involved are marked in darker colour.

Setting of the project can be non-formal or formal. It refers to the setting or environment of learning that is seen as suitable for each of the methodological models.

Final purposes of the project refer to goals that creators of the project had in mind when designing it in the first place. Experiences that were mapped had different goals, but we managed to classify them in 3 broader purposes:

- To promote inclusion competences among the young people involved
- To learn about game design process
- To create a game to promote social inclusion among other young people

In each Methodological Model purposes are rated on three levels:

- Main purpose for goals that are planned and explicitly promoted in the project
- Secondary purpose for the goals that came organically and aren't visibly promoted
- Not a purpose for the one that wasn't planned and wasn't visible through the project.



In addition to these three main aspects of the Methodological Models, each one has a short description, as well as further notes on:

Development of the process, its phases and length;

Participants suitable for this MeMo;

Other actors involved aside from young people;

Structure of the project;

Guidance needed for the project to be implemented.

Another important part of each Methodological Model is the set of competences that the said model aims for young people to develop. Out of all of the competences observed in different examples of practice in game design, 12 most common ones were extracted and then classified in 2 types: personal and social competences. Each MeMo features the list of all 12 competences showing which ones are more prominent and which ones aren't promoted in the model.

PERSONAL COMPETENCES



SOCIAL AND CIVIC COMPETENCES



For more information about Methodology Models, visit:

<https://www.citiesoflearning.net/gameon/>

Annex 2 - Inclusion papers

Spain

(Barcelona area)

Barcelona City Hall has an [Inclusion and social inequalities reduction strategy](#) that considers the main challenges for youth inclusion to be: having the basic needs covered, quality employment, access to housing, eliminating stigmatisation and social segregation and reducing inequalities.

During the local training module testing, we worked mainly with two targets: teachers and youth workers.

According to 15 high school teachers participating in the local training courses in Barcelona, the main challenge related to youth inclusion consists of removing obstacles and barriers that block the participation of young people. Those teachers consider that young people face difficulties in more basic needs, such as economic difficulties, low employment rates, low salaries that make it difficult to emancipate, and high rents. Young people must address all these barriers before they have the time and energy to participate more (politically, culturally, and socially). Apart from that, teachers also identified a lack of “culture of participation” in the majority of young people, only having a small minority that is socially participative. Another challenge to address is diversity seen as an obstacle, not an asset.

The more heterogeneous group of participants in the second local training course in Barcelona (5 people who work in different areas of non-formal education) identify the main challenge for youth inclusion as diversity management. The differences in cultural background, origin and socioeconomic context are considered the main pitfalls related to youth inclusion in the work environments of those youth workers.

Italy

(Sardegna/Piemonte)

Young people are continually confronted by the severe conditions of the labour market, which have led to unprecedented youth unemployment rates and consequent brain drain, as well as a more general decrease in expectations regarding the full realisation of their ambitions. Following an exciting study of Elisa Lello that applies well to the outcome of the two surveys, young Italians of today risk falling into disillusionment. The tendency is to downsize the scope of their dreams and aspirations even before verifying if they can withstand the impact of reality, just to avoid the risk of disappointment.

In this respect, it is argued that within this generalised loss of trust towards the future, the educational style has profoundly changed so that the exhortations to the young – to make them study and commit themselves – are increasingly based on threats rather than on the promise of what they can conquer in their future (Benasayag and Schmit, 2004).

The future has been presented to younger people as a land of hardship and danger rather than as one of hope and desire.

The survey has clearly identified these challenges for the inclusion of youth:

1. The difficulty in mainstreaming their dreams and identifying their references,
2. Being able to motivate young people in concrete actions that could lead to change,
3. Promote cooperation and discussion,
4. Working environment,
5. Lack of opportunities to upscale their competences and skills,
6. Difficult access to resources.

Young people are a scarce resource in terms of their numbers. Yet, their position in the labour market is highly precarious, and the quality of work they generally receive is uncertain. The structure of the opportunities offered to youths renders their transition into adulthood even more difficult than in previous generations. In general, young people are disadvantaged by difficult school-to-work transitions.

Lithuania

(Vilnius area)

The most recent and comprehensive account of the main challenges related to youth inclusion in Vilnius city can be found in the Vilnius city “Families’ and children’ welfare development action plan for 2021–2025”. It refers to several fundamental problems backed up with research and testimonies of education, social care and youth work professionals.

In the city of Vilnius, the most challenging situation is with “unmotivated” young people, especially in the age group of 25 years old. Unmotivated youth are considered to have fewer opportunities, do not work or study, are more likely to commit crimes, **experience social exclusion**, do not have safe spaces to develop, do not actively participate, live in families at social risk that experience social, cultural, economic and educational crises.

The percentage of young people committing crimes rises with age, especially in the age group between 19–23 years. Transitioning from compulsory formal education to a new life stage is critical for making future life choices.

Families at risk, including young people, need access to social skills development services

and training on problem-solving and overcoming conflict situations.

Young people, including those with fewer opportunities, have to have opportunities to participate in group activities to discover themselves and develop skills. Group activities must create a safe environment that will contribute to confidence building, self-esteem and emotional resilience.

There are two significant challenges that young people between 16 and 18 face: lack of activities that address their needs and interests and difficulties to find income generating activities. Those working with young people have particular difficulties reaching out and engaging with 16+ people who are not involved in education or employment.

Some young people aged 18–24 study but do not participate in civic life. This group often lacks information about opportunities to get involved in exciting and meaningful activities for them.

Others in this age group do not even study or work. They are most challenging to reach for those providing education, youth work, and social services to young people.

There is a significant lack of data about young people in the age group of 24–29. They often lack meaningful engagement activities, legal advice on employment and social security, financial literacy, health system information, family relations, non-formal activities, volunteering, and entrepreneurship. Young people lacking access to such opportunities and services often disengage in work-related activities and social and civic life.

Serbia

There is a noticeable change concerning the inclusion of young people with fewer opportunities in terms of the emergence of young leaders from different vulnerable groups actively working on self-advocacy and reducing barriers to the inclusion of young people from vulnerable groups. However, these are still individual examples that do not represent systemic solutions. These examples are essential because they build a new image and perception of young people from vulnerable groups as active citizens who make an important contribution to the development of our society and, at the same time, represent a good model for peers by showing that different social processes and topics are a space where their contribution is important, as well. At the same time, many young people from vulnerable groups still do not receive adequate support, and there is not enough systematic work to remove barriers to their active participation.

When we talk about educational inclusion as one of the preconditions for later inclusion in society and social processes, and where the educational transformation began more than 10 years ago, many young people are still outside the education system for various reasons.

For example, on the topic of education of young people with disabilities, the First Alternative Report on Youth issued by the Belgrade Centre for Human Rights in 2020 states that the application of educational laws and inclusive practices is very underdeveloped. There is still a tendency to exclude students from the education system, especially regarding children and young people in social care institutions. The same report on inclusive education of Roma youth mentions that the percentage of children from Roma settlements attending secondary school is only 21.6% and only 14.9% of girls and 28% of boys. Regarding young people at risk of poverty, the data are as follows – among the poorest, only 74% of children attend high school (68.2% of boys and 83.3% of girls). The percentage of young people in Serbia aged 19 to 24 with higher education is 39%. Still, the fact that the rate of completion of higher education is low is worrying.

Therefore, the data from the Alternative Report in 2021 is also important, where as many as 53% of young people were ready to leave the Republic of Serbia for economic reasons. Concerning that, young people from socially vulnerable groups often have no way to leave the country but try to survive despite not exercising their rights. Their invisibility within society due to reduced opportunities makes it impossible for them to reach even those measures designed to improve the position of young people.

Although youth organisations are the main organisers of inclusive activities and bearers of an inclusive approach, similar obstacles from the formal education system exist in non-formal education. Youth organisations have significantly fewer resources for work. Also, the cooperation of institutions and civil society organisations on the topic of inclusion is still not sufficiently developed, and there is no partnership for the benefit of young people from vulnerable groups. According to a survey from 2017, which examined the needs and capacities of youth organisations and for young people to improve work with socially sensitive groups of young people, only 28.57% of organisations have social inclusion as one of their priorities. At the same time, almost every fourth organisation (24.24 %) answered that it does not deal with vulnerable groups of young people. Another important insight is that youth organisations in their documents or descriptions often state that they are open to the inclusion of different young people but without a systematic approach to reach young people from socially vulnerable groups. Also, there are no provided resources to equalise the inclusion and competences of those who work with young people to really reach out and adapt their work to youth from socially vulnerable groups. The described circumstances are further aggravated by the outbreak of the Covid-19 pandemic, which significantly jeopardises the funding of civil society organisations.

Youth participation in Serbia is generally low, and young people state that the most common reasons are that they do not have enough information about opportunities for participation (34.5%). Up to now, the participation of young people with disabilities is recognised exclusively by addressing topics directly related to the socially vulnerable group to which

they belong, without a broader awareness of youth organisations, formal education system and society as a whole, that active participation of young people from vulnerable groups can make an essential contribution to all topics related to social development and the sustainable future of the community.

Annex 3 – “Incluship” (gamified tool for assessment of competences on inclusion)

The INCLUSHIP is a gamified tool that we created for assessing the inclusion competences acquired by young people through game design.

It proposes to participants of a game design process to become explorers of the competence islands of inclusion. In this exploration participants will acquire the necessary elements to construct together one ship to travel to new horizons.

The gamified tool consists of:

- **1 inclusion ship** to write the goal of the group
- **12 inclusion competences islands** to mark the explorations done by participants
- **70 exploration cards** to reflect about the learnings done during the game design process
- **One personal explorer journal** for each participant to collect the individual elements added in each social competence island.

This ship symbolises the inclusion challenge or goal of the game design process chosen by the facilitator or by the group.

The 12 competence islands around the ship symbolise 12 personal and social competences to promote inclusion (identified in the Game On project).

Each island has 3 kinds of elements (skills, knowledge, attitudes and behaviours) to help in the construction of the inclusion ship (achieve the group challenge or goal).



In chosen moments of the game design process, participants will reflect about the actions they implemented during the process, and they will identify which skills have been used, which knowledge have been acquired, or which attitude or behaviour they have shown regarding inclusion. To identify these elements, the INCLUSHIP offers 72 exploration cards with these elements in the front part and the exploration value in one or more social competence islands in the back part.



In this way, during the game design process, participants can identify attitudes and behaviours, knowledge and skills they have developed, linking them to their inclusion competences and their value in order to achieve the inclusion goal chosen at the beginning of the process.

This tool allows a cooperative assessment throughout the process of designing a game together, encourages communication and reflection on the group learning, while at the same time focuses on individual learning of each participant in the activity.

For more details about the INCLUSHIP gamified tool visit:

<https://www.citiesoflearning.net/gameon/>

Game On Educational Manual

GAME DESIGN FOR INCLUSION

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