



HOW TO SUCCEED WITH  
**DIGITAL GAMIFICATION**  
**FOR YOUTH**

**HANDBOOK**

Co-funded by the  
Erasmus+ Programme  
of the European Union







# CONTENTS

<b>INTRODUCTION .....</b>	<b>5</b>
<b>1. GAMIFICATION EXPLAINED .....</b>	<b>7</b>
1.1. What is gamification? .....	7
1.2. Features of gamification .....	7
<b>2. GAMIFICATION AND YOUTH WORK .....</b>	<b>12</b>
2.1. How does gamification work in a youth sector? .....	12
2.2. Gamification as a tool in youth work .....	12
<b>3. GAMIFICATION AND NEW SKILLS FOR YOUTH .....</b>	<b>15</b>
<b>4. SUCESSFUL GAMIFICATION PRACTICES FROM AROUND THE WORLD .....</b>	<b>17</b>
<b>5. GUIDELINE FOR GAMIFICATION PROCESS PLANNING .....</b>	<b>23</b>
5.1. Process, tools and templates for gamification .....	24
5.2. Gamification applicability .....	26
5.2.1. Questions to validate gamification applicability .....	29
5.3. Design of gamification for event.....	30
5.4. Effectiveness of Gamification .....	31
<b>CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>33</b>
<b>BIBLIOGRAPHY</b>	



Co-funded by the Erasmus+ Programme of the European Union



*The content of this publication is sole responsibility of the project coordinator and may not always reflect the views of the European Commission or the National Agency.*







# INTRODUCTION

Different agents shape youth's civic participation and engagement: family, school, peers, non-governmental organizations, media. Based on the fact, that non-governmental organizations (hereinafter – NGO) can play important role to promote youth engagement and participation, project results are focused to foster participation, applying activities of gamification elements as a new, attractive and innovative method for youth work.

According to the European Council and representatives of the Governments of the Member States, “to appeal to young people and to ensure greater impact on their lives, new settings where young people spend their time, such as modern city infrastructure and virtual space, as well as new approaches using innovative online and offline tools such as gamification”.

New approaches need to be engrained in youth work activities in order to uncover and develop the potential of young people. One of the methods that requires larger attention and acknowledgement is gamification implementation.

Gamification is the application of game elements and digital game design techniques to non-game problems, such as business and social impact challenges. This is a psychology and motivation-based approach to increase the motivation, engagement and contribution of the target audience, as well as achievement of the necessary results through their active involvement<sup>1</sup>. During the project “Digital gamification for youth engagement” research was made about elements and tools of gamification and different approaches used to collect most relevant information, resulting in the creation of handbook “How to succeed with digital gamification for youth” to educate youth organizations. The guidelines will cover following topics:

- what is gamification?
- why it is important?
- what are best cases of gamification?
- how to use the (digital) gamification?
- how to create the game by using of existing free templates and applications?
- how to involve and educate a greater number of young people on various topics such as, but not limited to, democracy, unemployment, civic engagement, sustainability, peace building, environment, local community etc.

Handbook is prepared for NGOs, youth workers and others stakeholders. The project will improve the understanding of digital gamification as pedagogical approach in non-formal education and reinforce the innovative way of teaching, introducing it as an attractive and integrating tool among youth.

Find full version of the [Handbook here!](#)

<http://socialinnovation.lv/en/handbook-how-to-succeed-with-digital-gamification-for-youth/>



<sup>1</sup> Iscenco, A., *Gamification in Sustainable Development. Masterpieces of the Nature*, 2014.





# GAMIFICATION EXPLAINED

## 1.1. WHAT IS GAMIFICATION?

Last two decades have shown the increased number of people using gamification methods in real life interactions to promote desired behaviors. Some visionaries, like game designer Jesse Schnell, predict a kind of *gamepocalypse* – the future, in which everything in daily life become gamified, from brushing one’s teeth to exercise<sup>2</sup>. Steven Spielberg has premiered a recent movie ‘Ready Player One’ (2018) with an example of such a virtual reality world with gamification applied in every aspect of human’s life. The same refers to fields like education, active participation, youth work and others.

Before identifying the way, in which gamification can help to increase the knowledge, competences and interests of youth in social and political processes, the concept of gamification itself has to be interpreted correctly according to the explanations of experts and writers in the field of games, gamification and simulations. The first task to understand the meaning, functions, types and tools of this concept is to accept that the term “*gamification*” is not equal to “*game*”. As a concept, gamification can be understood as “the use of game design elements in non-game contexts<sup>3</sup>, not being solely related to entertainment or opposite – serious games, used by industries like defense, education, scientific exploration, health care, emergency management, city planning, engineering or politics. Gamification goals are related to productivity; a game doesn’t have that need.

Gamification concept differs from the use of game-based learning too. Considering the game-based learning includes the use of games in learning process, then gamification is turning the process of learning as a whole into a game. Also, gamification should not be associated solely with digital technology, as it can be materialised in more the ways other than by digital media. Non-digitized methods are widely implemented in a lot of fields of action as well. As the pioneer of this concept, the game-based methods of gamification are progressively used in education, business and marketing. However, the primary fields of interest in this research would remain formal and informal education, youth work, civic participation, social innovations, healthcare and self-development, keeping in mind the education, business and marketing importance.

## 1.2. FEATURES OF GAMIFICATION

Similarly to the game, gamification strategy uses the motivational power of a game and includes components as: a goal that has to be achieved, rules that specify, how the goal is to be reached, feedback system that shows the progress achieved, and the principle of voluntary participation, listed by Jane McGonigal<sup>4</sup>, as well as elements like time, competition, cooperation, reward structure, levels, storytelling, curve of interest and aesthetics, added by Karl Kapp<sup>5</sup>. Elements can be classified more specifically or generally, depending on the author of this classification.

<sup>2</sup> Schell, J., *Design Outside the Box Presentation*, DICE 2010, 2010.

<sup>3</sup> Deterding, S., S., Khaled, R., Nacke, L., Dixon, D., *Gamification: Toward a Definition*, Proceedings of the CHI 2011, Vancouver, 2011.

<sup>4</sup> McGonigal, J.: *Reality Is Broken: Why Games Make Us Better and How They Can Change the World*, 2011.

<sup>5</sup> Kapp, K. M., *The Gamification of Learning and Instruction: Game-based Methods and Strategies for Training and Education*, 2012.



Although, the most typical elements of a game are *meaningful stories*, in gamification environment, the “player” has to live through a visual *avatar* and its *profile development*, that represents person and its attitude towards the avatar, perform *quests or tasks*, earn *points* and *badges*, that reflect achievements gained during completing these tasks in forms of scores and visual symbols, as well as appear in several *progress bars*, *performance graphs* and *leaderboards* corresponding with position towards a goal, position comparing to previous set or other “players”<sup>6</sup>. More specific description of each element can be found in a Table 1.

Table 1. Game elements and their functions in a game<sup>7</sup>

Game elements	Description	Motivational functions
Quests	Little tasks, which players have to accomplish within a game	Quests provide clear goals, highlight resulting consequences of a goal and emphasize importance of a players’ action within a giver situation
Points	Rewards accumulated for certain activities within a game	Points function as immediate positive reinforcements, which take form of mostly virtual rewards, provided for executed actions
Badges	Visual representations of achievements, which can be collected within a game	Badges fulfill the players’ need for success and thereby address people with a strong power motive, providing with virtual status symbols. Badges demote group identification by communicating shared experiences and activities and thereby enhances the feeling of affiliation. These elements also have a goal setting function and players’ feeling of competence.
Progress bars	Feedbacks about the current status of a player towards a goal	Both progress bars and performance graphs provide feedback. Progress bars provide clear goals, but performance graphs compare players’ performance to previous performances and thereby focus on improvement and foster a mastery orientation regarding goals
Performance graphs	Feedbacks about player’s’ performance, compared to previous performance	
Leaderboards	Lists of all players, usually ranked by their success	Individual leaderboards foster competition and address achievement and power motives. For players at the top of leaderboards, feelings of competence can arise, while those at the bottom can feel demotivated. Leaderboards, which provide a team-score, can foster the team members feelings of social relatedness, as they emphasise collaboration and community activities provided by shared goals and opportunities for shared experiences.

<sup>6</sup> Sailer, M., Hense, J., Mandl, H., Klevers, M., *Psychological Perspectives on Motivation through Gamification*, 2013.

<sup>7</sup> Ibidem



Meaningful stories	The story line, which players' live through within a game	By offering a variety of stories and meaningful choices within the stories, feelings of autonomy can arise, but inspiring character of the stories can increase positive feelings. Stories can meet the players' interest and spark interest for the situational context.
Avatars	Visual representations a player can choose within a game	Choices regarding the offered avatars, which are leading to different forms of gameplay, can foster feelings of autonomy. Positive feelings and emotional bonds can arise by providing avatars and by taking a developmental progress with the avatar.
Profile development	Development of avatars and attitudes belonging to such avatars	

Additional game elements and mechanics are described by other authors. The most valuable to note are *levels, reminders, communication* and *collaboration* (Table 2):

Table 2. Additional game elements and their functions in a game<sup>8</sup>

Game elements	Description	Motivational functions
Levels	A section (part) of a game, which requires the player to meet specific goals or perform specific tasks in order to advance to the next consecutive section of a game.	To reach the next level players are guided by smaller goals and competition with other players. While changing levels, players are motivated by the sense of accomplishment and desire of more challenging tasks. The advancement of the player is identified by the level reached in specific game.
Reminders	Notifications to remind the player to do an action.	By reminding about the actions needed to succeed in a game, interest and the need to advance is maintained. It stimulates learning within a game.
Communication	Social interactions between the players within gaming environment.	Chatting, passing different kinds of signals, challenging others, sharing advices, discussing the issues in the game and exchanging any other information from the community of members, who support and challenge each other. It can foster positive reinforcement, making friends, pairing, as well as self-esteem and social value of one.
Collaboration	Teamwork in a cooperative game, where the competition between teams takes place.	Social aspect of the game and the common goal develop sense of belonging, peer pressure, connections, loyalty and deeper involvement.

On the other hand, concept of gamification has more far-reaching goals than just increasing of mastery and experience of player in concrete entertainment or serious elements. Even if gamification is completely digitalized and communication with others is virtual, a person gains the knowledge to apply it to the real life situations. As a result, the temporary tool contributes to the long-term result. Gamification attempts

<sup>8</sup> Urban Europe, *Handbook of Best Practices in Gamification. State-of-the-Art*, 2016.



to affect motivation rather than directly change the attitude and behavior of a “player” (e.g. employer, participant, activist). Hence it should be distinguished from persuasive technologies that are meant for direct change of behaviors and attitudes, choice architecture and decision support systems that assist in better and more effective decision making, loyalty programmes used for marketing purposes, and games<sup>9</sup> mentioned above. The concept of gamification is not completely new as it comes along with the game-like principles of business and marketing, so, similar to them, gamification is carried out in order to support user’s overall value creation<sup>10</sup>.

Picture 1. Improvements brought by gamification<sup>11</sup>



By proper implementation of gamification strategy, motivation, encouragement, engagement, productivity, sense of belonging, gratification, pride and meaning, self-advancement, as well as overall behavioral change can be reached without sticking to any concrete area of actions. Before implementing the gamification one should define the purpose of using this concept – what set of users’ (employers, students, groups, kids, customers etc.) behavior would have to be changed, and set up goals to track the impact of gamification on those behaviors. Gamification goals together with relevant target groups reveal large psychological perspective of this concept still to be studied. Although it is known that one of the most important functions of implementing the gamification is to stimulate motivation to act according to the goals of gamification strategy.

This research focuses on youth as the most active facilitators of non-formal education and potential youth workers who can be interested in adding new competences to formal education without demanding special diplomas or certificates for it. Nowadays, young person is a very dynamic unit of community, and is more likely to change the behaviours than older person. Therefore, the relevance of using motivational, engaging and empowering facilities of gamification is of high importance if speaking about the positive social change driven by youth. Behavioral change should be reached regarding the approach to informal education itself, so it brings general understanding of one’s role and commitment to the whole society.

However, motivation as a term seems to be too wide to refer to everyone equally. There are several types of “players” whose behaviors can be explained by the meaning of their motives:

- Players with a strong achievement motive are likely to be motivated if gamification stresses out achievement, success and progress;
- Players with a strong power motive – status, control and competition;
- Players with a strong affiliation motive – membership and belonging.

The way person reacts to different drives is prescribed by its past experiences that mainly consist of previous stimulus-response bonds<sup>12</sup>. Positive or negative experience, that brings the understanding of what has been done to reach the result, is the reason of why player needs to receive feedback of its actions.

<sup>9</sup> Hamari, J., Koivisto, J., *Social Motivations To Use Gamification: An Empirical Study Of Gamifying Exercise*, University of Tampere, 2013.

<sup>10</sup> Huotari K., Hamari, J., *Defining Gamification - A Service Marketing Perspective*, 2012.

<sup>11</sup> Picture source: <https://obk.kz/news/ekonomika/technologies/item/127760-cho-takoe-gejmifikatsiya-i-kak-ona-spaset-vashu-kompaniyu>.

<sup>12</sup> Skinner, B.F., *Operant Behavior*, American Psychologist, 1963.



Immediate feedback allows to control the motivation of the player, if it is sent in a form of positive or negative reinforcements, providing rewards for positive accomplishments. The goal, as a possible result itself also has an important role in perception of the gamification and motivation to go through it. First of all, the goal should be clearly defined and achievable. The player needs to understand the importance of its actions leading towards the goal and consequences of achievements.

Few more reasons player is interested to use gamification are the needs to improve competences and gain new skills, having opportunity to use gaming techniques adapted to the level of difficulty to ones' individual skills and gradually improving them.

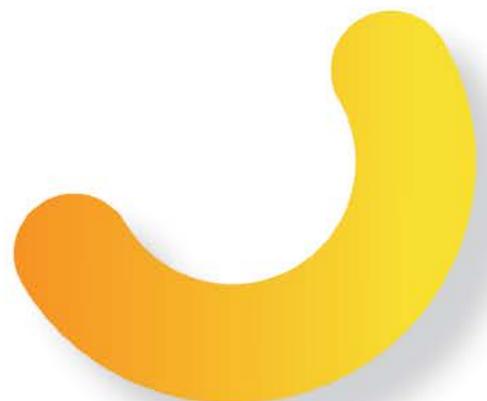
Corresponding with the need of social interactions, social influence, recognition and relatedness is an integral part of motivation used by designers of gamification. Social influence refers to an individual's perception of how important others are and what they expect from the player in gamification. This is also some kind of feedback, which is given by other players, for instance, in a form of "likes" or comments, and it can positively affect the perception of recognition: the more individual feels the support for expected behaviors and recognition of observers/co-players, the better it feels conforming those expectations of others. Receiving of recognition creates also positive attitude towards the use and implementation of gamification, considering it as a reciprocal benefit for community. According to the scientists of University of Tampere, reciprocal benefit, social influence and recognition increase their meaning by rising social benefit from gamification when the network of so called players exposes by growing of their number<sup>13</sup>. This mechanism creates certain attitudes and will to continue of using the system and recommend it to the others, as similarly does the increase of positive feelings like sympathy and pleasure.

The aspect of competition can be used in gamification as an additional driver to acquire new information or skills for a group of participants familiar to each other or to make them familiar in a linking game-like experience. This can be done like the competition between individuals of between groups, that is even more integrating. Competition ensures social interactions and encouragement to act similarly, with a chance to prove and demonstrate themselves. The goal of competition should be clearly set and the reward system (symbolic rewards for achievements) defined, mentioning that winning or losing is very low in importance, but the learning and integration have the key roles.

Gamification has an integrational function when speaking about the creation of community. Cooperation of the players provides additional results, adding to the learning process discussions and additional responsibilities in order to work for a common goal. The more individuals work together, the more they are able to achieve, making a synergy. Besides, gamification in a group can be fun and less stressful, giving the opportunity to fulfil experiences of others with one's own.

Gamification in general is the complex of motivational mechanisms linked to the game elements, providing individuals with motivational power to act more efficiently and develop new competences by applying more attractive methods of doing so. These methods are meant to create bigger empathy and motivation from game-like activities and transfer the knowledge to the real life contexts.

<sup>13</sup> Hamari, J., Koivisto, J., *Social Motivations To Use Gamification: An Empirical Study Of Gamifying Exercise*, University of Tampere, 2013.





# GAMIFICATION AND YOUTH WORK

## 2.1. HOW DOES GAMIFICATION WORK IN A YOUTH SECTOR?

With development of digital technology and changes of social standards, plenty of new communication tools and methods of games have been developed during last decades and those are overtaken by young people. The motivational function of gamification has increased in importance, as there are plenty of opportunities and comfort for youth, which make them less active in general sense. On the one hand, youth is the most dynamic social group, on the other hand - constant information flow and engagement in too many things make person less responsive to something new, therefore creativity used in promotional, engaging and motivational activities increases each year, giving the scene for gamification.

First young people should pay attention to “a thing”, get interested in and motivated to take part (or do something particular), or if the task is obligatory to carry out - gamification should make it enjoyable and easier to accomplish. Therefore, the needs, interests and motivations of young people should always be taken in account, leaving the space for observations, research and other activities, initially related to “marketing” (which is also considered as one of the first fields to implement gamification strategies in).

Even not being aware of “gamification concept”, organisations and individuals working with youth constantly search for new ways of engaging young people and communicating with them in youth’s language. In 21st century it involves the usage of social media, project managements and assessment tools, competition elements, special design for tools and campaigns, digital solutions, development of special trainings and programmes supplemented with different ice-breakers, networking and leisure activities, team works, semi-formal events and many more. Basically, gamification in youth sector is all about supplementing any of activities with elements, which can help to engage people and maintain their interest in a topic or activity. This can be reached in different ways; as different types of gamification exist.

## 2.2. GAMIFICATION AS A TOOL IN YOUTH WORK

It is clear, that new generations cannot be treated the same way as earlier generations: technological progress and social innovation have changed the perception of youth and made them more skilled comparing to their ancestors. Moreover, the dynamic development of societies makes them unshielded in terms of professional development, as changes in educational content and methodology are not occurring at the same pace everywhere, producing education that can simply be outdated for the future market needs. The informal education and training run by skilled youth worker is the driver for the gradual changes in formal education, as the informal one is often more flexible and innovative.





Preparing for any activity with young people, starting from organisational meetup to intensive 5-day training, modern youth worker knows the role and significance of energizers and ice-breaking activities, especially when the group of unfamiliar people needs to be engaged. One may think that these activities are simply wasting their time, but what about a week of intensive psychological training or a weekend of super-intensive conference, which excludes any visual presentations, certificates to gain or at least some networking sessions? Acquiring information, which does not include some distinct eye-catching elements and on-hand additions is quite challenging, especially for modern young people, who always carry their smartphones for the case they feel unsafe, bored or tired. The answer to the question, what is so special about the smartphone content comparing to exciting experience of gaining new knowledge from top-end professionals in a field, is simple: engaging design.

The main role of youth worker is to provide experience relevant for the age and interest of young people (or/and kids) and a lot can be learned from digital app designers. Smartphone apps need to be eye-catching, functional, aesthetical, teaching (contents or experience of use), engaging, social, varied and giving a chance for self-expression. Various of game-like elements are added to digital apps to make them dynamic and motivate users to return. Just like virtual or board games bring joy to people of all ages, youth workers need to think about making their activities more fun by adding gamification to the non-game contents, especially while undertaking educational activities. It does not mean, that only digitalisation can bring more fun to learning or practical activities. Any social or educational event can be supplemented with some competitions, special design, visuals, gamified interactions, which motivates, encourages and involves everyone. To gain such results, few basic principles need to be borne in mind:

**1. Hands-on approach.** Instead of giving the knowledge, learning by doing need to be enhanced.

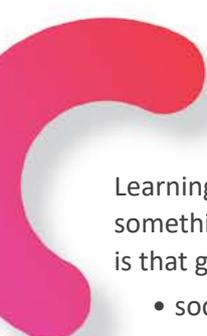
**2. Simulations.** The “knowledge to memorize” need to be substituted with roleplaying, which creates and improve skills, habits and behaviours. It initiates the independent thinking process, problem solving ability and creativity, which are necessary skills for future market.

**3. Creativity.** There are different ways of problem solving, and each approach need to be analysed individually, not judged. In case of young people, it eliminates the fear to express, enhances initiative and allows creativity to inspire for more.

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

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

Although gamification tools often come from the area of business, marketing and human resource management, they can be applied to youth work, as the motivational and engaging purpose is the same.



Learning to work effective for a company and learning to act effective for oneself and society members have something in common: learning and communication. What else important, while speaking about gamification, is that gamification in youth work can be evaluated as tool for variety of activities:

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

Since gamification is often used to discuss the heavy topics, which young people try to avoid, it is important to understand, as a tool for what kind of activities gamification might be used. Bullying in the school, low motivation to study, youth unemployment, difficult relationships with parents, disabilities, sexual relations - these are only a small part of topics, which need to be discussed with young people in an accurate way, without pushing them to absorb and understand the main parts they need to learn. The simple initiation of interest in topic would be enough for young people to pay attention to the topics and find solutions by exploring individually or in teams of interest. The component of fun need to added to make young people more relaxed while discussing sensitive topics. Besides, the mechanics of game has the ability to explain the consequences of each action, even if it appears only in a simulation game. Simulations, similarly to the job trainings and learning, makes young people think about the solutions, discuss them with peers, make new connections and expand the horizons.

Gamification as a tool adds an additional stimulus to do tedious tasks, which are necessary in any case. Doing homework, volunteering, cleaning the common space, accomplishing administrative tasks, planning and monitoring the work - almost every tasks can be gamified by adding the system of awards and competitive drive. In practice gamification may look like a board of leaders on a wall, virtual competition, chat group with functional features for teams, team-buildings and community events, certificates of accomplishing something and other benefits.

The social relation between the young people and youth workers are also of special importance, as they require partnering interactions with no or minimal hierarchy. Therefore, modern technologies come to a stage to support communication, for instance, via social media, quizzes, common urban games and other activity platforms, where friendly relations are stressed out. It relates not only to youth and youth workers, but also to other groups of stakeholders, such as parents, teachers, employers etc. It results in bigger engagement into activities organised by members of own community, improving learning to learn, socializing, language and other skills necessary for development of young person in 21st century's reality.



## GAMIFICATION AND NEW SKILLS FOR YOUTH

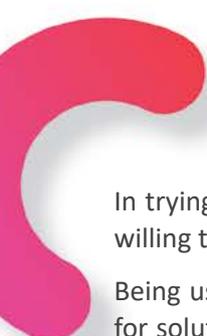
Referring to non-game contexts, the impact of gamifications, relates to development of creative and critical thinking, logic and reasoning, memory, attention, processing speed and other skills. The storylines of gamified learning activities are usually closely connected to the reality or the future reality, which might happen if certain actions are taken. These are simulations, where the “player” is required to make predictions, manipulate variables, observe effects and try to understand complex systems. Similar processes are observed in a scientific thinking, which itself encompasses the set of reasoning and problem-solving skills involved in generating, testing, and revising hypotheses or theories<sup>14</sup>. In teaching these skills to young people, gamified learning is appropriate, as it contains the element of fun and makes the learning process “lighter” and more engaging. Besides, the storyline (game element) makes the information easier to remember comparing to unrelated scientific facts, as it evokes imagination, perception and emotions about the content.

Within a simulation, which in this context can also be called “a game with a purpose”, the “player” practices the teamwork with its character of a simulation. The real “player” and his character in a game have different features and knowledge, and therefore the “player” can learn from the character and have an insight in how the problem solving is run in situations, which occur in a real life, in fields of medicine, law, urban planning or any other field. The cooperation with other “players” and characters within gamification teaches the role of teamwork and strategy planning, which is only possible if proper communication is established inside the game. Such simulation games are already being applied in education, business and other fields, where trainings are required.

Problem solving within gamification (simulation) is usually a creative process, which do not include some scheme or scenario. The “player” need to act logically and consequently, discovering own path to success. It initiates creative thinking, which refers to the cognitive skills of stretching one’s spectacles, generating and evaluating multiple ideas and alternatives, as well as novel and practical ideas. On the other hand, youth nowadays need to be sceptical enough to make problem-solving as effective as possible. While simulating situations, changing strategies and discovering the consequences of each action, gamification teaches critical thinking in order to make the best judgments regarding on what to believe and what to do or avoid doing.

<sup>14</sup> Morris, B. J., Croker, S., Zimmerman, C., Gill, D., Romig, C., *Gaming science: the “Gamification” of scientific thinking*, 2013.



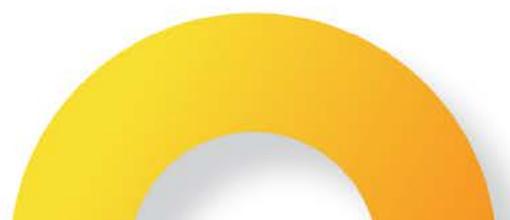


In trying different models of behaviours with the simulation, one trains analytical skills and memory, being willing to help other “players” in similar situations and maintain the experience to apply in real life practices.

Being used to problem-solving make person resistant to difficult situations and more focused on searching for solution. Practicing gamified activities, attention can be trained without noticing it. While concentrating of the visually and contextually engaging task, the “player” focuses on the main goal and is able to ignore distractions, at the same time keeping in mind the presence of other “issues”, that can also be helpful in other situation. The attention allows to reach the goal of activity faster and generate ideas effectively during the activity. The increase of effectiveness makes accomplishment of tasks more operative, therefore processing speed – higher.

The involving character of gamified activities increases the attention of the person and makes the learning process more effective and even enjoyable. Often players of video games do not even notice how much they have learned during obviously non-learning activities. This may successfully be applied to fields of work and learning, which are usually not perceived as fun to do. At the same time such activities initiate serious brain activities, which allow to memorize the situation and appropriate actions, decrease the level of stress and uncertainty, switch in creative thinking, ability to work in teams stimulate scientific and critical thinking, reasoning skills and many more cognitive and soft skills.

The abilities mentioned above facilitate young people in their active learning process - at school, work, during non-formal courses, business trainings and negotiations, organisational tasks, team building activities etc. On the one hand, gamification is useful to learn things and practice skills, on the other hand, new skills and knowledge can be applied to initiate new activities, not obligatory related to learning process.





# SUCCESSFUL GAMIFICATION PRACTICES FROM AROUND THE WORLD

One of the sub-objectives of this study material was to search for successful cases of gamification for youth in partnership countries of the project – Latvia, Estonia, Portugal, Croatia, India, Vietnam and Argentina. Each project partner has contributed with the knowledge on practical tools, methods and events for youth, which are characterized with integrate game elements. The best cases have been selected and described in this chapter to show the variety of gamification used in order to reach higher youths' engagement, motivation, empowerment, as well as give the knowledge about various topics. The areas of gamification implementation, described in the following examples, are education, culture, civic participation, youth employment, architecture, IT, self-development, languages, finance and other fields.

## PAKA PAKA, ARGENTINA

*Education, culture*

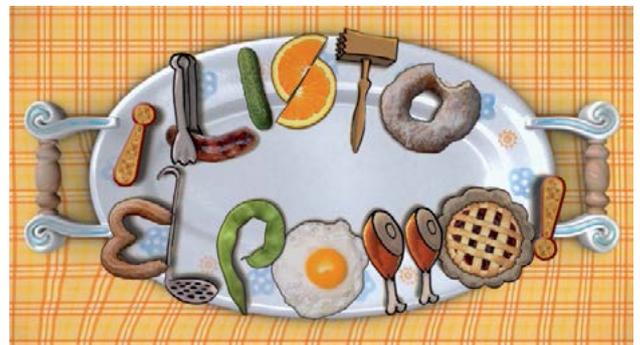
### Overall description

Paka Paka is an interactive website and educational public channel which was developed for children and teenagers to promote national identity, including historical, geographical and educational content. It essentially creates a space for gamified activities and imagination, encouraging the discovery, curiosity and knowledge, innovation, challenge fun while learning new information. All the web page is interactive, with illustrations and information for kids and teenagers.

### Why is it important?

The idea is to reinforce gamified elements with the popular characters of the TV that are made with educational purposes. The public channel, operated by the National Education Ministry of Argentina, was born with the proposal to promote this educational content in general for children and young people. The educational platform embraced gamification to attain to the ever developing demands of the new generation of youth. For this reason, its

*Picture 2. Paka Paka*



website as well as the channel were created to bring knowledge to its target audience – youth.

### Impact

The creation of multiplatform formats makes the comprehension of the contents more attractive and engaging, with the knowledge reaching the audience, either by readings, television, games or applications for smart devices.

**More information:** <http://www.pakapaka.gob.ar/>



## SJEDI5, CROATIA

Education

### Overall description

To engage youth in the continuous and informal education, the website (portal) “Sjedi 5” (eng. “Sit A”) was launched by the Association for Development of Modern Educational Methods in the Republic of Croatia. The project was established in 2010 in Osijek and aims to create an online portal for digitally savvy youth to develop the broader knowledge of basic fields required to pass the exams or improve their skills through games and interactive learning. The website is in Croatian language, gives an opportunity to choose interactive games to test your knowledge in such areas as Croatian language, mathematics, geography and logic, enhance the knowledge or prepare for the final exams. It consists of collection of reading materials, latest news articles about the science, culture and events in the local scope. The website also offers to purchase the interactive games for further offline learning.

Activities of this project are directly linked with playing board and card games, however these are just tools for improvement of knowledge and skills in natural sciences, human sciences, language arts, vocabulary, and thinking through learning together in teams during the informal activities.

### Why it is important?

The role of non-standard learning is essential part of young generation as their demands and interests are more and more inclusive of digital technologies. As young people tend to seek the knowledge from various sources, the digital or e-learning platform

Picture 3. Sjedi 5



is highly important promoting informal education. Interactive games on “Sjedi 5” are meant to be played both during the classroom activities and outside the class.

### Impact

“Sjedi 5” emphasises the importance of the fun part of learning the different fields of studies through digital platform. Youth is becoming more engaged with attractive interactive features of the game while enhancing their knowledge in various fields of knowledge. Their motivation is increasing and they are encouraged to discover new things through game and engage in the significant to everyone lifelong learning.

The platform offers a range of different levels of games that help to better understand areas of science such as mathematics, physics, chemistry, geography, as well as spatial thinking and logic.

**More information:** <https://sjedi5.com/>

## RAJALEIDJA MÄNG, ESTONIA

Youth employment

### Overall description

Rajaleidja Mäng is a gamified quiz for young people aged between 13-17 years, who want to know more about different professions and occupations. Career counselors can use it in their work when young people come to the counseling. The quiz contains topics, which can be used while discussing young people’s work and study plans. Especially useful this tool can be in cases, when young man/woman avoids such topics as working towards their career paths.

### Why is it important?

Young people these days can easily get lost among the variety and number of the career paths they can choose. While some of the youngsters have in mind the career they wish to follow or the future they see for their employment aspirations, rather large proportion of youth hesitate or have little knowledge of what is it there on offer.

Picture 4. RAJALEIDJA MÄNG

Rajaleidja Mang offers clarification specifically to this audience, engaging them into an interactive and attractive gamified quiz prompting the discussion, thoughts about or building on the future employment skills expanding the youth knowledge about careers.

### Impact

More young people started to think about their career and what they want to do in their life earlier. The quiz is being used in various institutions focusing on youth employment providing grounds for evaluation.



### More information:

<http://ametid.rajaleidja.ee/mang>

## CAREER QUEST, INDIA

### Youth employment

### Overall description

IYF partner QUEST Alliance, based in Bangalore, the country's tech hub, has developed a physical board game for young factory trainees. It takes players on a journey through a 'day in the life' of a manufacturing facility. Young factory workers compete to earn as many 'production points' as they can before their "shift" ends. Producing timely reports and engaging mentors ratchet up a player's score, while poor time management, conflicts at work, and equipment problems seriously impede one's chances of winning. The game reinforces the 110 hours of life skills training players previously received, which includes lessons on time and money management, personal values, gender roles and stereotypes, conflict resolution, and other topics.

### Why is it important?

In order to understand the different phases and best path to a successful training and workforce development, the board game explores a gamified method to smooth the integration of young workers in the manufacturing industry in India. The board game allows young workers to prepare for the very real opportunities and obstacles they will soon need to navigate. This comes in light with the lack of student exposure to the wealth of

Picture 5. Career Quest



professional choices available to them and a limited understanding of how to advance in their field. To correct this, the game enables its players to visualize a range of technical career options.

### Impact

To date, EquipYouth has trained 1,000 youth in India, a significant portion of the program's 8,000 beneficiaries worldwide, suggesting the far-reaching potential for Career QUEST to be incorporated into future curriculum teachings. The board game is now being translated into Spanish for the use in Latin America. Plans are also being explored to adapt the concept for use in a range of industries, including retail.

## REVEAL (L'OREAL), INDIA

*Youth employment*

### Overall description

Serving as a business game, 'REVEAL' has been used in different countries of the world. Between 2010 and 2015 L'Oréal has used gamification tools to recruit for marketing, human resources, sales and other operational positions within the company in India. Within a simulation players have to participate in the life cycle of the product. Right from the production to marketing/sales of that product. Analysing the situations and taking the right decisions. At the same time the "player" interacts with avatars, representing employees, and get a sense of what department he/she might be the most suitable for at the company.

### Why is it important?

The objective of the game is to get selected either for an internship or a full-time job. The whole idea of the game was around a L'Oréal Product Launch. The players had got exposure to L'Oréal's culture and values via this game. It also helped the participants to get more information about their career options and decide on the career choice of the field or department within the company.

Picture 6. Reveal by L'Oréal



### Impact

Captures techno savvy youth to the cosmetics industry, they could analyse through the game, where they fit in the company. The game secured a number of industry awards including the 2010 National Graduate Recruitment Award for the 'Most Innovative Way of Attracting Graduates'. By 2015 the game had amassed 120,000 players.

## BE FIRST, PORTUGAL

*Self-development, inclusion*

### Overall description

"BE FIRST" is a interactive gamified tool organised as a board game, where each player faces challenges and gets involved in simulation of experiences that can help to direct them and clarify decisive facts about life situations. Participants are involved in a board game, where each player is faced with challenges throughout the different chosen paths. These, in turn, relate to the development of skills and the improvement of the performance - so important for a growing young person.

The name of this gamified concept results from the integration of five competences that inspire creative and positive approaches on the five **FIRST** competences (Flexibility, Improvisation and creativity, Risk, Stress and Tasks).

### Why is it important

This tool offers players the chance to analyse and offer perspectives, reveal action opportunities, and

Picture 7. BE FIRST



inspire creative and positive approaches on the five FIRST competences (flexibility, improvisation and creativity, risk, stress and tasks). It also allows each participant to master the talents and skills of each player, improving their productivity and performance.

By participating in this gamified activity, each person can become more aware of his/her purposes and

the various processes that can be used to enhance and optimize the abilities and talents. For youth it is always important to get to know themselves better and to strive for higher levels of achievement.

### Impact

BE FIRST gamified methodology increase productivity and can optimize team interaction, fostering the enthusiasm of young people and the whole teams in order to achieve the goals identified and contribute to a common good. The “BE FIRST” gamified concept is itself a process of enhancing people’s talents and skills.

**More information:** <http://www.fluxphera.com/index.php/jogos/jogo-be-first>

## LATVIAN CULTURE CANON ORIENTATION GAME, LATVIA

*Education, Culture*

### Overall description

Preparing for the 100th anniversary of independence of Latvia, Ministry of Culture of Latvia have organised gamified educational activity for pupils and their families, involving patriotic symbols and telling stories about them. During the activity, which was titled as Latvian Culture Canon orientation game and organised in National Library of Latvia (huge complex of libraries, exhibition rooms, conference halls etc.), families were given maps and asked to search for 17 masterpieces and cultural values included in Culture Canon of Latvia: literature, cinema, architecture and traditions, visual arts, drama, music, design.

The activity was aimed at teaching pupils and their families more about the heritage of their homeland, as well as engage with their parents and friends within the thematic event dedicated to the culture.

The game includes orientation activities that are conducted in physical environment: architecture monument of Latvia. Tools – maps, descriptions.

### Why is it important?

A number of educational and leisure activities were organized last year in order to promote values and great achievements of Latvia, as the 100 anniversary of independence has approached. This activity specifically engages pupils and their families, giving a reason to

Picture 8. Latvian Culture Canon Orientation game



visit one of the greatest architecture monuments of the last decade built in Latvia – National Library of Latvia. It is the symbol of nation’s formation in the end of the 19th century as it contains Dainu skapis, the collection of Latvian folklore songs gathered by the famous writer and folklorist K. Barons. Now it contains much more valuable artefacts to show to public, teaching about the culture and meaning of these symbols for Latvia.

### Impact

Children have an opportunity to visit the biggest library collection in Latvia, explore masterpieces and valuables, significant symbols of their homeland, as well as spend quality time with families and friends, learning about history and culture. Beside these objects, they explore the collection of books for children and other tradition and culture rich material.

### More information:

<https://www.lnb.lv/lv/piedalies-kulturas-kanona-orientesanas-spele-gaismas-pili>

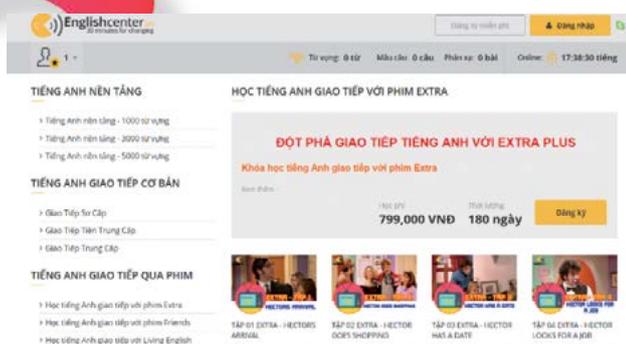
## ENGLISHCENTER, VIETNAM

*Education, languages*

### Overall description

Englishcenter.vn is an English learning website for community at low cost. It is an interactive platform for Vietnamese, who want to study English. It uses the technology to support the learners, providing opportunity to learn via video,

Picture 9. Englishcenter



audio materials as simulation examples for practice. The points rewarding system and interactive communication tools are also included in this platform.

### Why is it important?

English, as an international language is recognised globally and it is necessary for Vietnamese to get a better job or to travel.

However, the basic level of knowledge of English language is not sufficient and youth needs to be encouraged to improve the language skills. A lot of resources are spending on teaching children and youth English in specialized language centres or online courses. That is the prime aim why Englishcenter.vn has been established.

### Impact

By using a points system, language learning game motivates people to spend more time online to study. Reaching the certain amount of points, they can transfer them into specific awards. Game also provides possibility to be connected to each other, learn from each other and maintain the motivation of studying English. The impact of the game can be evaluated as the stimulating learning languages in more attractive way.

**More information:** [www.englishcenter.vn](http://www.englishcenter.vn)

## EUROPEAN MONEY QUIZ, GLOBAL EXAMPLE

*Education, Finance*

### Overall description

European Banking Federation together with the European Banking Federation, as organizer of the European Money Quiz, have teamed up with Kahoot! to make learning about money and finance more fun. An international financial literacy competition has been launched in 30 European states to promote the awareness about the finance world as well as foster the healthy competitiveness within youth. The competition takes place in two phases. In March, during or around European Money Week, classrooms can play directly against each other in a live Kahoot! (live quiz) webcast on YouTube. The classroom winning this national money quiz on Kahoot! will be the national champion. The second phase is the European final, in May in Brussels. The classrooms that won the national competition will be invited to send a team of two students – and a teacher or parent to accompany them – to Brussels for the European finals.

### Why is it important?

As there is low level of knowledge about personal finances not only within youth but even in general population, the aim of this educational contest is to motivate and engage youth in researching and eventually preparing for the competition,

Picture 10. European Money Quiz



broadening the general knowledge and facilitating the opportunity for youth to get ready for the future real-world life activities and stages where financial knowledge is required.

### Impact

Youth learns about personal finances through youth-friendly online platform. European banking associations, The European Money Quiz, organized for the first time in 2018, was played by more than 41.000 13-to-15-year-old students from across Europe.

**More information:** <https://www.ebf.eu/europeanmoneyquiz/>



## GUIDELINE FOR GAMIFICATION PROCESS PLANNING

Gamification is a perfect method and possible solution for many issues and it is a great tool for synergy and connections in the globalised world. Even interculturally there are many differences but technologies, applications, mobile devices have become inevitable part of life of young people in practically all the parts of the world and all types of communities, social, educational and economic background. That is why use of gamification tools shall be understandable and effective globally and internationally. However, implementation of the gamification approach requires some basic steps to be taken.

There are several prerequisites to apply gamification as a strategy to involve youth in different activities:

- a. clear understanding of motivation (described previously);
- b. relevant gamification method - consider offline and online (described previously) ;
- c. educated youth workers.

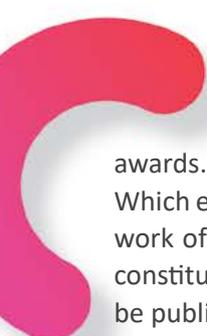
In order to create relevant gamification project, process or content, several steps need to be followed:

- 1. Focus on user needs.** A profound understanding of users, their motivation and needs, as well as of context characteristics are fundamental requirements for gamification projects. Focus on user needs is essential component. The experts also mentioned user involvement in the ideation and design phase as requirement.
- 2. Defining objectives.** The objectives of a gamification project should be defined clearly, as clear goals are essential (1) to guide the overall project, (2) to evaluate the success of a gamification approach and (3) to be able to assess, whether gamification can be used to achieve the desired objective.
- 3. Testing.** It is important to evaluate and test gamification ideas as early as possible. Regular user tests are often mentioned as additional condition for successful gamification projects.
- 4. Monitoring.** Continuous monitoring and optimization of gamification projects after implementation is a prerequisite for long-term success.

Creation of content and activities for gamification is one of the most challenging tasks within gamification project. The content should be interactive, engaging and rich with multimedia elements. Gamification content should have an ultimate goal, as well as appropriate conditions and opportunities to achieve the goal. The main feature of the goal is feasibility – all learning activities should be achievable. They have to be tailored and adapted to students' potential and skill levels. At the same time, each subsequent task is expected to be more complex, requiring more efforts from youngster and corresponding to their knowledge and skills. It practically means increasing of difficulty levels of any activity, just like in games.

In order to develop diverse skills in youth, they need to be able to reach the objectives by various paths, releasing creativity and independent thinking. This allows youth to build their own strategies, which is one of the key characteristics of the active learning. By adding game elements and mechanisms, the tasks that need to be accomplished are supplemented by accumulation of points, transition to higher levels, and winning





awards. All these actions are aimed at achieving predetermined objectives of specific gamification project. Which elements will be best to include depends on the defined objectives. Activities that require independent work of youth bring individual awards (such as badges). Activities requiring interaction with other learners constitute the social element - they make students a part of a big learning community and their results might be public and visible (such as leaderboards, social media etc.).

## 5.1. PROCESS, TOOLS AND TEMPLATES FOR GAMIFICATION

Gamification process has to be considered as the one consisting of several steps. A. Marczewski proposes several essential steps for creation of the framework for gamification process<sup>15</sup>. In terms of use, such aspects as “Analytics” might be rather transformed as “Analysis”, which includes indicators and measures, which are reached by youth. These can be quantified, but also quality related indicators. For instance, mood or behaviour improvement of some socially marginalised youth representatives, might be a relevant example of the “Analysis”. For designing and implementation process there are 8 important questions:

### 1. Do I know WHAT I am going to gamify?

You must be totally sure what the activity(s) is that you are going to gamify

### 2. Do I know WHY I am gamifying it?

Just as important as what is why. What do you hope to gain from this project?

### 3. Do I know WHO will be involved?

In terms of youth, it is clear, but more detailed explanation of age or geography might be settled by youth worker. Who are your “players”? You need to know that to be really able to engage with them.

### 4. Do I know HOW I am gamifying it?

There are different approaches and these have to be clearly settled. Once you know What, Why and Who, it is time to work out what you are going to do to gamify it all. What elements and ideas will work best for your system? Are you going to employ rewards or are you going to work purely with intrinsic motivators? It will be different every time.

### 5. Do I have ANALYTICS set up?

You have to have metrics and analytics of some form – otherwise, how do you measure success, check it is working, find critical points and also report back to engaged youth?

### 6. Do I have TESTED with users?

You must test anything like this with the target audience. They are the ones who will be involved, not you and the designers.

### 7. Do I have ACTED on feedback?

Collecting feedback from testing is only beneficial if you actually act upon it.

### 8. Do I have RELEASED the solution with proper informative support?

Finishing and releasing are different. Silently pushing your new system out is pointless and nobody will notice or use it. Make some noise about it, get people on board before they have even seen it! You can engage youth, already development process, which will increase the rate of use and improve distribution the gamified project as soon as it is finished and ready to be distributed.

<sup>15</sup> Marczewski, A., *Gamification framework*, source: <https://www.gamified.uk/wp-content/uploads/2012/10/andrzej-gamification-framework.pdf>.



Picture 11. Gamification framework by A.Marczewski<sup>16</sup>

Different templates like charts, outlines, scoring schemes are available to settle proper gamification process for gamification experience. There are 3 different approaches selected for youth workers to gamify their activities. However, considering gamification it has to be taken into account that three main components need to be taken into consideration in the designing of the gamification process:

- keeping it simple;
- more personalization and focus on the results;
- feedback.



### Badges by Badgecraft

Example of such approach, where simple process of offline feedback as engagement component, simplicity and keeping concentration on the main aim - focus on the result (workshop), can be observed from the Badgecraft example (Picture 46).

Picture 12. Open Badges for Recognition and Feedback

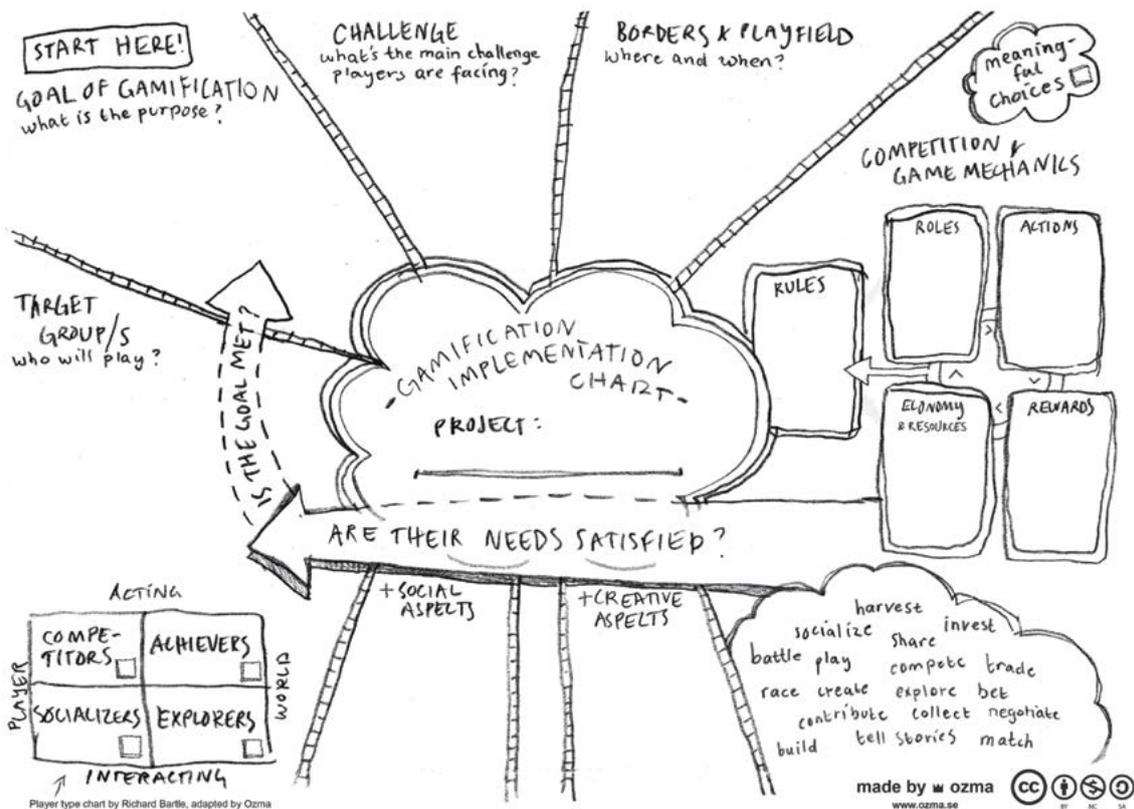


### Gamification Template by Ozma

The step by step instruction uses terminology “player”, but in context of youth work “youngster” has to be used as main target group. Depending on the approach - gamification can happen as activity with youth and youth can be actively involved in creating rules, actions, rewards etc. If youth is proper age, they can also participate in the very beginning of gamification, defining goal and challenge to be gamified.

<sup>16</sup> Ibidem.

Picture 13. Gamification implementation chart <sup>17</sup>



## 5.2. GAMIFICATION APPLICABILITY

Gamification applicability and respective Gamification KIT is simple, but relevant tool for planning gamification elements in every youth activity and has been adapted for youth workers. Three main components: user problem (youngster's problem), user goal and value proposition are key elements. Those effectively managed by the youth worker can lead to the great results in pursuing youth reach specific targets.

### User problem

Identifying the user problems are relevant as this is the starting point for the user centered design process. There must be a clear user problem that is worth solving, and it is important to write it down when discussing about the applicability of gamification, since not all user problems are relevant to be solved through the means of gamification.

### User goal

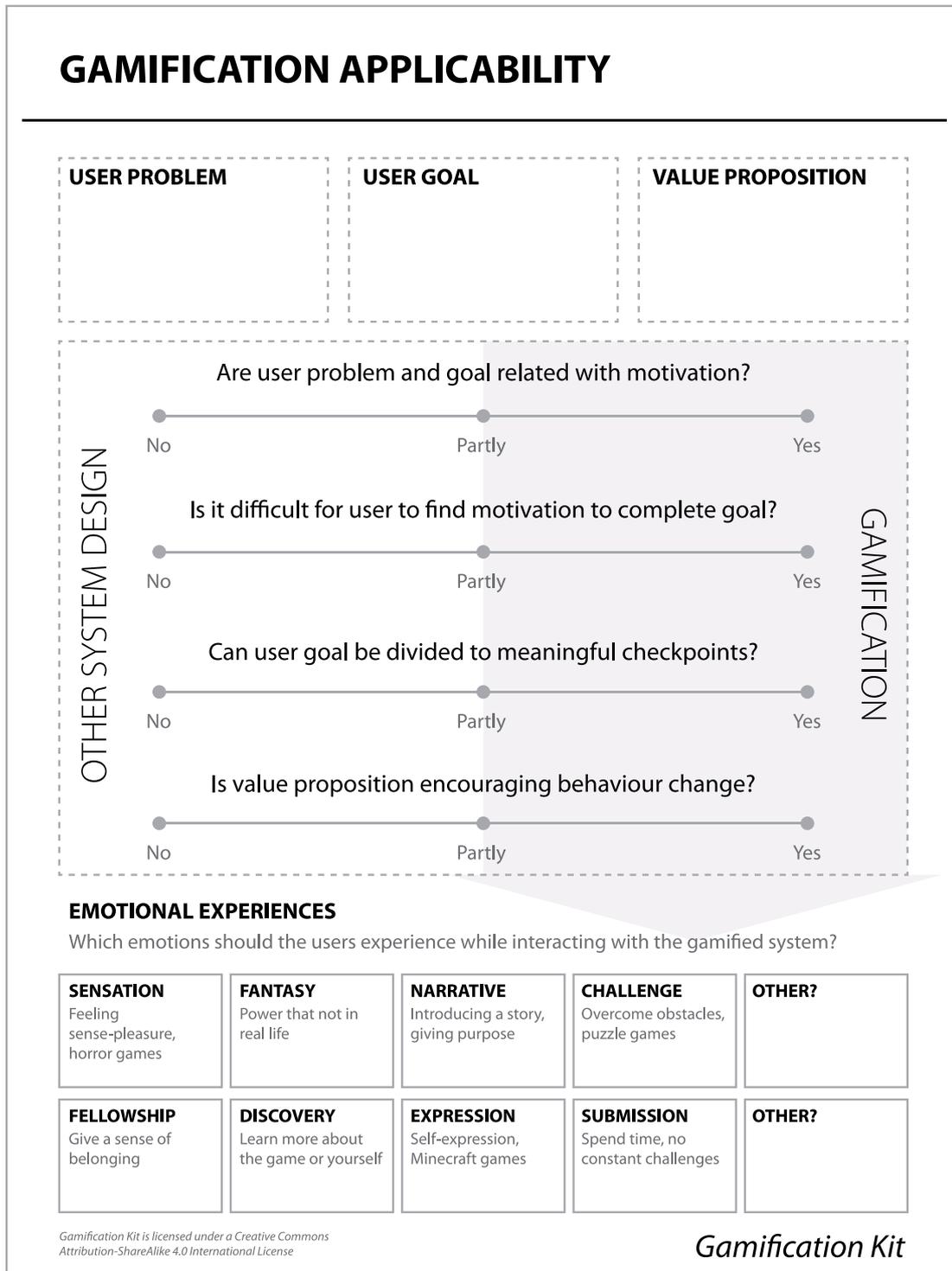
It is important to understand the meaning of user goal in this context. The user goal means the ultimate objective of the user related to his personal development, community, education etc. The goal is the underlying reason why the user wants to use the system. For example, in sports tracking applications, the goal is not to see how much a user has run, but it might be to lose weight or get more motivation to running. In social media applications, the user goal is not to get a lot of likes, but the underlying goal might be to get social recognition or to feel as being important.

<sup>17</sup> Gamification chart, source: [http://www.ozma.se/download/Gamification\\_Chart.pdf](http://www.ozma.se/download/Gamification_Chart.pdf).

## Value proposition

Value proposition describes the value that the solution proposes to deliver to the user. In other words, it describes the current user needs or problems and how it is proposed to be solved in the new solution. The value proposition gives boundaries to the solution, and is thus important to define before thinking about the gamification aspects.

Picture 14. Gamification applicability<sup>18</sup>



<sup>18</sup> Kallioja, T., *Gamification Kit: A practical toolkit for designing user-centered gamification*, 2017.

## Gamification model Canvas

Gamification Model Canvas is an agile, flexible and systematic tool created by S. Jiménez, to help find and evaluate solutions based on game design and to ultimately develop behaviors in non-game environments. Gamification Model Canvas is based on formal models of game design and experience in gamification projects. This free tool is based on two main works, adopted globally: “MDA Framework: A Formal Approach to Game Design and Game Research” by Robin Hunicke, Marc LeBlanc and Robert Zubek and “Business Model Canvas” by Alex Osterwalder. This model is more complicated, comparing to previous ones and only some elements can be used to create gamification experience, since it is more oriented to the professional gamification development needs. However, some of section can be successfully used or integrated as part of previous templates.

Picture 15. Gamification model canvas<sup>19</sup>

# GAMIFICATION MODEL CANVAS

Project name:

Design for:

On:

Design by:

Iteration:

<b>PLATFORMS</b>  <p>Describe the platforms on which to implement game mechanics</p> <p>What platforms do we have available for incorporating mechanics?</p> <p>What platforms can we use to bring mechanics to the player?</p> <p>What platforms will the game run on?</p>	<b>MECHANICS</b>  <p>Describe the rules of the game with components for creating game dynamics</p> <p>How will we use the selected components to develop behaviors?</p> <p>How can we explain the mechanics to our players?</p> <p>How can we increase the difficulty of mechanics over time?</p> <p>Examples of mechanics:                      Watch this video and get 10 points                      Answer this survey and get expert level                      Complete this form and unlock this badge                      Buy something to complete this mission                      Read content before 15 minutes                      Recommend something and get this prize</p>	<b>DYNAMICS</b>  <p>Describe the run-time behavior of the mechanics acting on the player over time</p> <p>What dynamics will we use to create the aesthetics of our game?</p> <p>What dynamics work best for our players?</p> <p>How will these dynamics work in our game?</p> <p>Some dynamics:                      Appointment                      Status                      Progression                      Reward                      Scarcity                      Identity                      Productivity                      Creativity                      Altruism</p>	<b>AESTHETICS</b>  <p>Describe the desirable emotional responses evoked in the player, when they interact with the game</p> <p>What elements will grab the attention of our players?</p> <p>Why should they play?</p> <p>How can our players have fun?</p> <p>Some aesthetics:                      Narrative      Challenge                      Fellowship      Discovery                      Expression      Fantasy                      Sensation      Submission</p>	<b>PLAYERS</b> <p>Describe who and what the people are like in whom we want to player over time develop behaviors.</p> <p>Who are our players?</p> <p>What are your players like?</p> <p>What do our players want?</p>
	<b>COMPONENTS</b>  <p>Describe the elements or characteristics of the game to create mechanics or to give feedback to the players</p> <p>What components will we use to create our dynamics?</p> <p>What components will create game mechanics?</p> <p>What components will be used to provide feedback?</p> <p>Some components:                      Points      Progress Bar                      Badges      Missions                      Avatars      Achievements                      Leaderboards      Virtual Goods                      Levels      Real Prizes                      Countdown      Inventory                      Dice      Virtual Currency</p>		<b>BEHAVIORS</b>  <p>Describe the behaviors or actions necessary to develop in our players in order to get returns from the project</p> <p>What behaviors do we need to improve the challenges of the game?</p> <p>What behaviors would our players like to improve?</p> <p>What behaviors can be improved?</p> <p>Examples of behaviors:                      Watch video                      Answer survey                      Complete form                      Buy something                      Read content                      Recommend something                      Go to a website                      Read email</p>	
<b>COSTS</b>  <p>Describe the main costs or investment for the development of the game</p> <p>What are the main costs of the game?</p> <p>What budget is available for achieving the challenges set?</p> <p>Can we phase costs over time, based on the achievement of objectives?</p>		<b>REVENUES</b>  <p>Describe the economic or social return of the solution with the introduction of gamification</p> <p>What economic or social challenges set out the game?</p> <p>How will we measure the success of the game?</p> <p>What results do we hope to achieve from the game?</p>		

**WWW.GAMEONLAB.COM**

Please send us your valuable feedback!  
 canvas@gameonlab.com

Gamification Model Canvas is based on the Business Model Canvas <http://www.businessmodelgeneration.com> and is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported License.

This work is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/3.0/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA.



<sup>19</sup> Gamification Model Canvas, source: <http://www.gameonlab.com/canvas/>.

## 5.2.1. Questions to validate gamification applicability

One of the best ways how to validate gamification applicability is to check it by different questions presented by T. Kallioja within Gamification Kit.

### **Are user's problem and goal related to motivation?**

The purpose of the first question is to discuss if motivational aspects are present in the user problem and goal. It is necessary to discuss if motivational aspects are related to the user problem or goal. If motivation plays a role, gamification could be used to encourage user activities.

### **Is it difficult for user to find motivation to complete the goal?**

As the first question discussed, an essential part in gamification is to find motivational aspects in user goals. In addition to the motivational aspects, these aspects must also be something where user needs encouragement. Gamification is ideally used to encourage activities that the users are interested to complete, but have difficulties in getting themselves motivated<sup>20</sup>. Hence, it is important to discuss whether the user has difficulties to find motivation for completing the desired goals. This way it can be better understood if gamification could be used to encourage and motivate the users to complete these goals.

**Can goal be divided to meaningful checkpoints?** The identified user goal should not be tied to the gamification context, but be more broadly related to their needs. These goal-focused activities should help the user to advance towards the main goal. Hence, it needs to be possible to divide this main goal of the user into smaller tasks or activities that can act as checkpoints. Checkpoints can be goals in the gamified system, and act as progress indicators, showing the progress towards the main goal. This way, the ultimate goal is divided to more easily approachable activities. The checkpoints are important in gamification so that the user can be given slowly increasing challenges and show progress, keeping user engaged. If checkpoints can be identified from the main goal, it could be meaningful to apply gamification to the concept. If these kinds of checkpoints however cannot be identified, the gamification mechanics would be difficult to be applied, as there would be no clear progress indicators to show the user how he or she is progressing towards the main goal.

**Is value proposition encouraging behavior change?** Gamification is intended to change people's attitudes and behaviors<sup>21</sup>. Hence, it cannot be meaningfully applied to any kind of solution without discussing the motivational aspects related to the solution. It is necessary to discuss if the proposed solution is something that encourages users to change their behavior. If this kind of aspect can be identified from the value proposition, the motivational aspects play a key role in the value proposition and gamification could thus be used to encourage the behavior change of the users.

There are no exact rules when gamification should and should not be used, but the answers to the questions should guide the decision process and help the decision makers in making more informed decisions whether gamification could be applied to the concept or not.

<sup>20</sup> Hamari, J., Koivisto, J., Pakkanen, T., Do Persuasive Technologies Persuade?, 2014.

<sup>21</sup> Ibidem.

## 5.3. DESIGN OF GAMIFICATION FOR EVENT

Event gamification is a relatively new concept. However, gamification is a fantastic, and simple way to make attendees feel completely immersed in an event. A poorly planned game can break an event. Applying game design concepts—like points, competition, and awards - to non-game contexts is proven to create psychological satisfaction and meaningfulness in tasks. Certain elements of game design help players create narratives as well as experiences of social relatedness. It's about more than just playing games. Gamification simply encourages to do things in exchange for rewards. It might be a physical prize, emotional satisfaction, or community building. By using the right game design, it's possible to direct gamification towards meeting any number of event goals.

**1. Define expectations.** It's important to define what sort of expectations relate to particular event. An event that is suitable for gamification is one where event planner is interested in understanding engagement, and improving attendee participation and activity in the pursuit of event goals. Gamification is also typically done through an event app, or other dedicated mobile technology. While offline gamification is definitely possible, it is infinitely more difficult to track activity and award points.

**2. The demographics of attendees, engagement and importance of reward.** In the context of the project, youth as a target group is expected to be "young", in other words - gamification is suited towards a younger crowd—millennials, or the quickly upcoming Generation Z. Everyone plays games at some point or another, it's much more prudent for an event planner to focus on the game design. Planners can create the ideal gaming circumstances for each particular attendee demographic. Instead of asking "Will my attendees play games?", ask "Why will my attendees play this game?".

**3. Reward.** Important aspect of motivation is reward. First and foremost, your game should be engaging so attendees want to play it. Try to come up with an overall theme for the game that makes sense for your event. Gamification is more likely to succeed when the creator sets up reward circumstances suitable for the group of players. So when setting up the gamification for event,

consider what type of reward will most cater to that particular demographic. Is it physical prizes? Recognition from their peers or other intangible rewards?

**4. Selection of proper technology to support gamification process and fun.** For any event, which anticipates attendees gaining some knowledge or learning, gamification is an excellent way to incorporate education in the attendee's experience without overloading the user with information—and to make sure that they're leaving with the information that they need. Incorporating skill testing questions is a great way to gamify education or training events. Like other education apps, players can gain points for answering questions correctly and trying tests again. At an event, you can also award points for downloading documents, or exploring different parts of the app.

Adding an element of competition and motivation via a points system, and even an in-app scoreboard, can go a long way in making attendees more inclined to engage in learning activities. Training events can be beneficial, but educational gamification can be incorporated into any event where learning is an event goal. Gamification is one of the best ways to guarantee event app adoption. However, if the game stops being fun – you can bet that attendees will stop using app. Keep attendees using event app by making game fun. Include a leaderboard that displays the top ten players with the highest scores to motivate attendees to keep playing with friendly competition. Up the stakes by having prizes for the top three players.

**5. Make it beneficial.** A key piece to successful gamification is making it easy for attendees to get something out of your event, all while having fun. For example, using gamification to promote networking. Networking can be difficult



for many attendees, but with the help of gamification, attendees can easily break the ice in a less serious manner. By adding points to certain networking activities, it encourages attendees to talk to one another while still gaining traction in the game.

All of these elements can lend to a fun and exciting game at event.

## 5.4. EFFECTIVENESS OF GAMIFICATION

Effectiveness of gamification might be analysed from the very different perspectives. However, in terms of the project, only two aspects will be analysed as the most critical - engagement and sustainability.

### MEASUREMENT OF ENGAGEMENT

Engagement plays the key role within the gamification process that also defines how effective the process has been. Measuring the effect of gamification on target users' (in case of project - youth) behaviour – remembering that gamification can modify user behaviour both directly (i.e. through goal setting, calls to action and effort increases), and indirectly (i.e. by improving motivation and improving team spirit).

As attested by Zichermann and Cunningham (2011)<sup>22</sup> engagement can be measured in five ways:

- **Recency** (the average time period between one activity and the next);
- **Frequency** (the amount of times an activity is participated in a given time period);
- **Duration** (the length in time of the participation of an activity);
- **Virality** (the rate at which an activity propagates from one user to other users);
- **Ratings** (the rating or review).

This model of measuring engagement provides the gamified approach with a means of benchmarking the effectiveness of the specific approach itself. All of these are valuable metrics to monitor so that youth workers are keeping a close eye on the ongoing performance of the gamification project.

### SUSTAINABILITY OF GAMIFICATION

The effectiveness of the gamification process is connected also to sustainability. The main failure of gamification process happens because it is designed very poorly, hence, relevant design with clearly defined goals, high engagement level and clear benefit for engaged (youth) is a key to sustainability. The Gamification like many other processes is not a “one size fits all” solution and has different aspects. These aspects have to be carefully analysed by youth worker to achieve proper results and impact on the youth by the gamified approach. Gamification has to be observed as a process looked at it in a long term perspective, not a single activity. This statement is also confirmed by Kris Duggan, the founder of the gamification platform Badge Ville. He explains that: “Gamification is not a project...it’s a program that gets invested in for the long-term. Those that understand that see the most impactful and meaningful results”.

<sup>22</sup> Zichermann G., and Cunningham C. *Gamification by design: Implementing game mechanics in web and mobile apps*, 2011



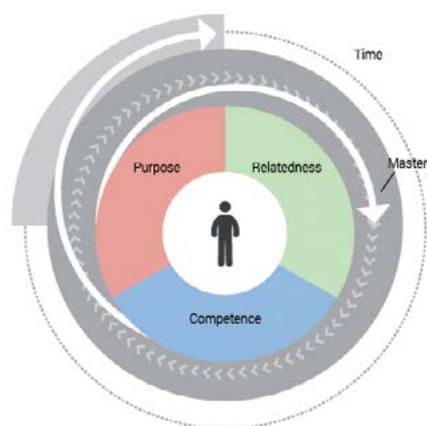
Sustainability process has to be also observed from the point of view of **evolution gamification process as a such**. Evolution gamification as a process is in transition from Gamification 2.0 to Gamification 3.0, where the process is presently headed towards sustainability. The Gamification 3.0 is a combination of the traditional gamification and the social and insight driven experience of the Gamification 2.0. See image below:

Picture 16. The evolution of Gamification<sup>23</sup>



AlMarshedi proposes Framework for Increasing the Sustainability of Gamification Impact (SGI). The SGI framework contains five main elements and other sub-elements (see more details in SGI framework description). These are flow, relatedness, purpose, autonomy and mastery, which work together in order to balance and design the best experience to the user in different scenarios. The SGI framework proposes a focus on flow dimensions and motivational determinants in order to provide engaging and sustainable gamified experience.

Picture 17. SGI Framework<sup>24</sup>



The SGI framework could assist designers in several ways. First, it can give them with the ability to create engaging applications that draw upon intrinsic motivation. Second, it can provide elements that relatable to the user, through the focus on user's skills and expectations.<sup>25</sup>

<sup>23</sup> Rao Gadiyar, A., *Gamification 3.0: The Power of Personalization*, 2014, source: [https://www.cognizant.com/content/dam/Cognizant\\_Dotcom/article\\_content/default/gamification-3.0-the-power-of-personalization-codex1020.pdf](https://www.cognizant.com/content/dam/Cognizant_Dotcom/article_content/default/gamification-3.0-the-power-of-personalization-codex1020.pdf).

<sup>24</sup> SGI Framework, source: [https://www.researchgate.net/figure/SGI-Framework\\_fig1\\_281459732](https://www.researchgate.net/figure/SGI-Framework_fig1_281459732).

<sup>25</sup> AlMarshedi, A., Wills, G.B., Wanick, V., Ranchhod A., *SGI: A Framework for Increasing the Sustainability of Gamification Impact*, 2015.



# CONCLUSIONS AND RECOMMENDATIONS

## CONCLUSIONS

Based on the results of the literature review, case studies, experience exchange trips and the online questionnaires number of conclusions regarding the state of the gamification use in the work with youth was made (please, find more information in *full version of the Handbook here* <http://socialinnovation.lv/en/handbook-how-to-succeed-with-digital-gamification-for-youth/>). The primary conclusions are discussed below and recommendations are given, however the analysis made is much broader and some of the areas are still less covered due to volume and variety of findings.

There is an enormous amount of information available about gamification and its application through variety of sources. However, little research and lack of attention is paid to study the benefits of using gamification to engage particularly youth. The useful informative summaries or guides for organisations or institutions planning to use gamification as a tool to engage youth are often missing. Previously published materials on gamification in youth field are mainly limited to the collections of attractive ice-breaking and networking activities, however the deeper sense of gamification needs to be revealed and explained for the use in youths' education and engagement in various topics and activities. Hence, a list of relevant researches and publications that are available online, and sources of additional information on specifically youth field and application of gamification tools is important area to pay attention.

This handbook is created exactly with such aim - to educate the youth organizations on how to use the digital gamification, how to create and integrate the gamification elements by use of existing free templates and applications, how to involve and educate a greater number of young people in on various topics such as, but not limited to, democracy, unemployment, civic engagement, sustainability, peace building, environment, local community development etc. Although the handbook "How to succeed with Digital Gamification for youth" will be useful to a broad spectrum of readers, the primary audience is likely to be youth organisations or institutions working with youth and its stakeholders.

It is important to establish a coherent and clear understanding of the gamification and its types in order to effectively use the tools. Commonly accepted and the most relevant to youth field is Deterding's definition of gamification as "the use of game design elements in non-game contexts." The whole handbook is based on and around this definition, shedding the light on the explanation of gamification and game design elements which can be used in the number of contexts. There are also opinions and definitions expressed by other prominent and actively working game design experts, such as A. Marczewski, G. Zichermann, J. McGonigal and others.

The handbook provided the range of sectors and fields where gamification has recently been used and had some effect on youth engagement. Most commonly, gamification has been applied within educational environment: in formal, non-formal and informal education. Starting from basic school education programmes with innovative gamified elements to less formal gamification tools such as interactive presentations, social media, digital apps or gamified simulations, as an example, to make education attractive and integrating. To promote



the digital gamification as new, innovative tool for youth engagement, the wide list of topics related to youth and youth workers have been discussed: democracy, unemployment, civic engagement, human rights, youth entrepreneurship, environmental education, health and self-development, social responsibility, and active participation in community. As gamification is only the mean to reach larger involvement, interest, motivation, determination and other useful characteristics, all mentioned areas of actions has been analysed from the perspective of young people and youth workers: what benefits gamification brings into these fields of action and how it is (and can be) used.

Various methods of learning and teaching were discussed in sections describing gamification in education. A lot of the tools and methods are already implemented by schools, universities and informal educational entities, however still a lot of efforts are missing in increasing the interest and motivation of young people. Instead of building the rooms for discussions, simulations and project-based work, formal education general is still less flexible than informal one, concentrating on personal achievements reflected in grades or attendancy of theoretical lectures. Non-formal and informal education is richer in terms of application of engaging gamification tools and methods. However not all of youth workers and non-formal educational entities has fully acknowledged the role of digital and offline gamification – the successful application of such means understanding of the target audience, the needs and interests of it, as well as objective of each specific activity organised for the target group – youth.

Gamification for youth is not appearing solely in organised youth work. Each individual can benefit from the digital applications and materials developed for youth regardless of the place and time. It is well known, and also proven by online questionnaire for youth, that young people are actively using different gamified digital tools (games, learnings apps, collaboration tools etc.) for the private use and learning, for instance, in order to create healthy habits, learn new languages, improve the knowledge about various topics (ecology, social trends, programming, entrepreneurship development etc.), search for a job, train brain activity, gain inspiration, communicate with peers, express one self, involve into community activities and political decisions and many more.

Youth workers can even be unaware, however various gamified opportunities are already been used by young people, therefore youth workers need to apply appropriate ones for their work to go hand-in-hand with their target group. The specificity the events and activities organized by the youth workers is the opportunity to personalize the activities for concrete groups during the offline activities. Online activities are good for informing and teaching, however face-to-face events are more engaging as they involve socializing element, build larger empathy and in general are more effective. However, it does not mean, that offline gamification is completely separated from the digital gamification, as internet is still the most powerful media to link with the young people.

The struggle, which appeared during the analysis of questionnaires within this study, is understanding of “gamification” concept itself. In order to evaluate the situation of gamification use among youth and youth workers and provide areas of potential improvement and development, the online questionnaires were distributed in the partnering countries of this project to the youth and youth workers. The results have shown, that only 50% of surveyed young people and only 56% of youth workers truly understands what “gamification” means, therefore bigger attention should be put on promotion of gamified learning and “doing” techniques among both groups to reveal the potential of young people to the maximum. The quantitative results of this survey does not obligatory mean, that youth workers are not using gamification methods, rather they are unaware of it and/or not using the opportunities to the full. It is partly proved by quite large part of the young people, who thinks, that gamification occur in digital environment only. However, this is not true, unless the surveyed youth has never been involved



in offline activities involving gamified icebreaking, networking, learning and other kinds of activities, or are not aware of it.

According to the youth and youth workers in Latvia, Estonia, Croatia, Portugal, Argentina, Vietnam and India, formal and informal education are the most important areas for gamification implementation. Youth workers have stated that other most requiring fields are civic participation, the activity of NGOs, charity and social campaigns, sports and cultural life. Youth in turn rate business management as the area also requiring attention to game-based techniques and tools for increasing motivation and engagement. In general, young people think, that the greatest benefits, what gamification brings, are attraction of attention and entertainment of young people during their activities - learning, working, socializing etc., as well as raising of the interest towards usual things, that makes studies and work more enjoyable and can significantly improve the communication with others. This need to be taken into account by educators, employers, youth workers and other stakeholders.

Another thing to note is that, according to surveyed youth, the most enjoyable activities of gamification are team work and icebreaking activities (as offline gamification techniques) and the use of social media and digital collaboration tools (as online gamification techniques). However, the survey was not able to rate which online or offline gamification is more affective for youth, and this question requires deeper analysis.

To gain bigger understanding on how the youth workers are implementing gamification, study trips were organised to Vietnam, Argentina and India, which were reviewed and analysed to provide the insight of the youth engagement levels within gamification in the partnering countries. Project partners got acquainted with the regional, local experience in each organization and met relevant stakeholders. Youth workers and youth leaders have discussed ways of engaging youth, reviewed actions for their communities that are already in place, exchanged good practices and discussed possible limitations of engaging young people in social activities, proposing the gamification as one of the prospective tools to use.

Based on the study of best cases, the most successful examples of engaging youth with help of gamified elements as ideas or ongoing solutions in the partnering countries were analysed. Some of the most outstanding are Movi Joven app in Argentina linking youth with cultural events in the city of Rosario and rewarding for their activity, as well as Estonian game-based educational platform Rajaleidja, which has been stressed out for its proved innovative method to engage more youth in education and teaching field. Few globas examples were also included, demonstrating other ares to use gamification in. All of the cases demonstrate the grounds which are already established for the potential of gamification with youth.

## RECOMMENDATIONS

Regardless of variety of inspiring examples, there are still struggles with application of gamification on a wider scale. The basic barrier for stakeholders and organisations is misunderstanding or lack of clear definition of gamification. The creation or application of basic gamified tools and elements such as points or/and reward systems without understanding of clear objective poses a potential threat for gamified activity, being ineffective and meaningless. This in turn will not affect youth positively in a long term the way it should to. Missing the right objective also reflects on missing the needs of target audience, the audience itself and implementing wrong approach. Young people are of different age and interests, so different approaches need need to be applied in terms of gamification. It is worth to remember that motivators for 15 and 29 olds are also different, however both are considered as youth. It refers to the content, as well as design of the gamified activity. The right tools and methods need to be selected. Youth today is quite requiring in terms of proper design, regardless of the activity - offline event setting or digital app design. The young audience needs a compelling attractive or "catching" reason to keep coming back and stay engaged on a continual basis, or gamification might fail to achieve its desired results. It is recommended to invest in a planning of infrastructure, design of gamification elements and provide the support systems that will maintaining the attractiveness and engaging elements of gamified activities.

Before starting or applying gamification, not only right game elements need to be selected, but the whole strategy of gamification settled and revised. In Chapter 10 recommended guidelines were provided for gamification process planning and executing, offering the examples of A. Marczewski's several steps for gamification framework creation to simplify the processes of planning and design development.

It is crucial to understand WHAT to gamify and WHY this needs to be done, as it is important to identify gaps, improvement areas and challenges related to youth engagement in terms of motivation, perception, possibilities of choices and other factors. The next reflections, that have to be done prior the gamification activities, are related to: WHO will be involved and HOW the gamification need to be run, not forgetting to

identify the criterias of result assesment and testing gamification with the final users – youth. The participation of target group and their feedback is of special importance, just like marketing research before the launching the business. After testing and reveing the feedback on planned activities, the important part is to take the feedbacks in account and improve the experience for others. It does not matter; it the object is digital learning app or educational summer camp. We recommend to review and apply these steps for clear understanding and connection of your objective with the gamification aims.

Different templates like charts, outlines, scoring schemes are available to settle proper gamification process for gamification experience. It is recommended to design user-oriented activities, identifying user problem, user goal and value proposition. In case of this study, youth as a user group is what matters the most.

As a recommendation to establish gamification process, Gamification Model Canvas - agile, flexible and systematic tool, presented in Chapter 10, can help to find and evaluate solutions based on game design and to ultimately develop behaviors in non-game environments. This and other tools and template are recommended to be used as support for designing gamification process.

Hence, recommendation is to follow and establish some tracking system, while designing gamification pathway, which clearly follow specific changes of such indicators like behavior. Measuring the effect of gamification on target users' such as youth behaviour, it is recommended to keep in mind that gamification can modify users' behaviour both directly (i.e. through goal setting, calls to action), and indirectly (i.e. by improving motivation and improving team spirit).



Taking into account observations, questionnaire analysis and available studies, researches and other publications, more initiatives and studies are required in order to promote the concept of gamification and showcase possible results and impact of proper gamified techniques used for the benefits of young people. Although, this requires long term observations, the gamified tools are already widely used even without noticing the presence of special “gamification”. Bigger awareness gamifying the work with youth need to be reached by integrating communication and learning (teaching) methods into fields that at the first glance still seem to be far from flexible gamification implementation, for instance, formal education, business management or employment.

The creation of handbook has prompted the need of the future long-term work at national, regional and global levels with the main subject of gamification as youth engagement tool. The recommendations are based on the literature review, data collection through the desk research, observations and meetings during the study trips, case studies and the online questionnaires as well as feedback from the project partners. The experiences of the project partners, as well as involvement of volunteers and relevant stakeholders have been used to gather wide scope of gamification related quantitative and qualitative data as contribution to handbook. The created handbook should be viewed as supporting guidelines and a reference tool to increase application and use of gamification elements in youth sector.

More studies and youth work projects towards understanding on establishment of effective gamification environment (real life or digital environment) need to be launched. The most effective way to reach deeper understanding of the concept means working out the guidelines for practical gamification events’ implementation, which are based on deeper research. Gamification as a part of youth work is still poorly described, as gamification studied more in contexts of education and business management. There is a need to research more such questions, for instance, if there is sufficient number of gamification activities done by youth workers in real life environment, or whether there is lack of understanding and recognition of non-digital gamified techniques among youth or which – digital or non-digital – environment is more effective in terms of gamification.

These topics are important and can bring valuable contribution to the knowledge pool of application of gamification in the youth sector.

