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Please cite the original version:

Cristiansen, P., Van Herck, G., Missine, L., Vanhooren, V., Achten, L., Allegaert, B., Mottar, L., Lehto-Lundén, T, Salmenkangas, M., Andersson, M & Mohammadi, S. (2021). Games, seriously!? Serious games as a tool for empowerment. Artevelde University of Applied Sciences.

https://gamewise.io/en/handbook-games-seriously



GAMES, seriously!?





SERIOUS GAMES AS A TOOL FOR EMPOWERMENT













CONNEXT for inclusion is an international ESF project running from 2018 to 2021 with partners from Belgium (Flanders), Finland and Sweden. The aim of CONNEXT is to prevent exclusion, school dropout and unemployment among young migrants and refugees through game-based empowerment. It also aims to increase competences of professionals with respect to gamification, gender equality and transnational networking.

CONNEXT stands for connecting and motivating people, it establishes a connection for both migrants and refugees groups and professionals to society and to the future. CONNEXT wants newcomers to take the next step towards education and the labour market, building on co-creation and a high level of participation.



Metropolia University of Applied Sciences, Finland

Local network: Helsinki YMCA, Omnia Vocational Institute, Sports Federation of Southern Finland and Stadi Vocational Institute 

Karlstad municipality, Sweden

Local network: Jobbcenter Karlstad, Värmland Tillsammans, Värmlands Framtid



Artevelde University of Applied Sciences, Ghent, Belgium



gameWise, a Belgian non-profit organisation which focuses on game-based empowerment to assist youngsters in becoming self-conscious and digital citizens in a rapidly changing society.

Local network: Groep Intro vzw, aPart vzw, Vlaamse ScholierenKoepel

The project is funded by ESF, the European Social Fund.







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Artevelde University of Applied Sciences March 2021

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GAMIFICATION

The use of game elements in non-game contexts. Think about supermarkets using stickers for loyalty programmes or teachers using games or game elements in the classroom.

GAME-BASED LEARNING

In a game-based learning environment players take up game challenges and work towards a goal. They can make mistakes in a risk-free setting and learn through experimentation.

SERIOUS GAMES

Games especially developed for educational and motivational purposes, often using ready-to-use gaming platforms. Debriefing and reflection after playing are important aspects.

SERIOUS URBAN GAMES

Games in an urban context. Players go outside, as into an authentic learning environment. Moreover, they need the world around them to accomplish their game challenges. Sometimes the context can be less urban, as players are required to go e.g. to a park or into the woods.

GAME CHALLENGES

Tasks and missions the players have to fulfil during a serious game.

GAME DEVELOPER

The professional who develops contents for a game. In CONNEXT we preferred to set up a co-creating process together with different stakeholders, including the players.

GAME MASTER

The professional who facilitates the whole game process and creates a playful learning environment for all the players.

GAME PLAYERS

Participants in a game, in CONNEXT mostly (young) newcomers, migrants and refugees. But they were often more than just players, they co-created our games.

IN-GAME PARTNERS

In-game partners are social stakeholders, public and private services or organisations collaborating in the game to accomplish the game challenges. These partners have been briefed in advance and know how to interact with the game players.



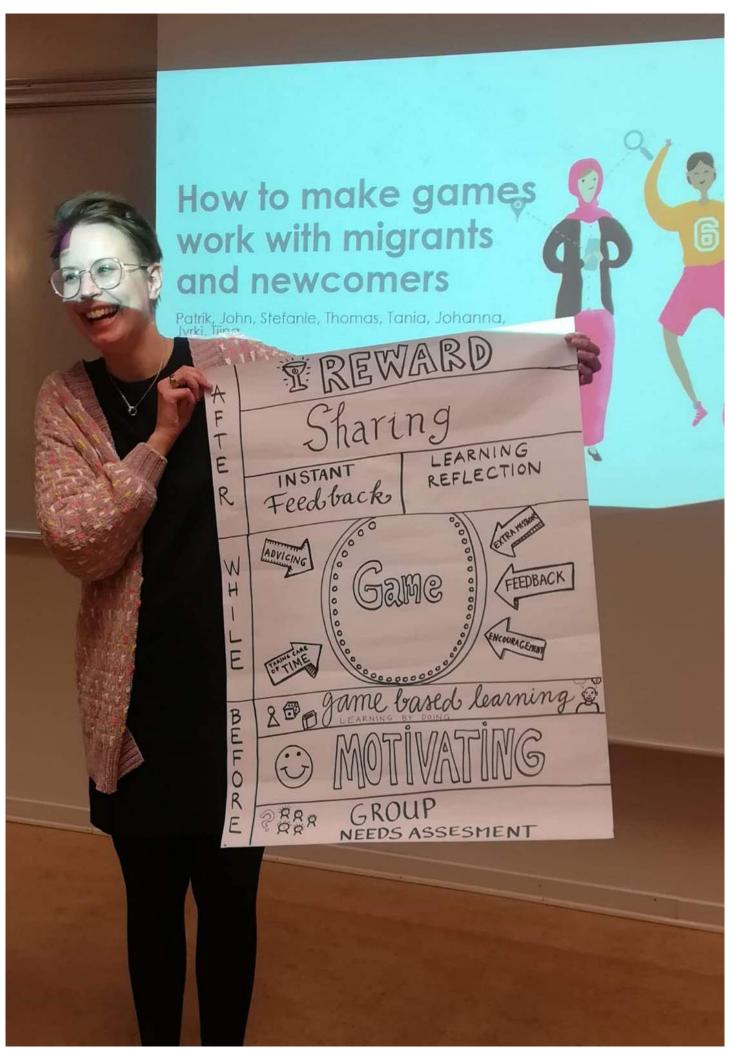


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Game-based empowerment, it works!



In CONNEXT we understand game-based learning and gamification in a broad manner. We go beyond simply applying gamification or integrating game methods to 'live up' a learning process.

CONNEXT first and foremost aims to empower people through play. In addition to that, it envisages the creation of a more effective and therefore more sustainable learning experience.

In CONNEXT we have explored the opportunities of game-based empowerment in three countries and eight organisations, and have seen many happy moments and lots of enchanted smiles. We now wish to share the inspirational insights and lessons we have learned.

This handbook is targeted at professionals in the fields of teaching, social work or employment counselling, who work with *NEETs* (young people 'Not in Education, Employment or Training') or with migrants and refugees. We hope it gives professionals practical tools and inspiration to start using games in their work. Many people are convinced that gamification is a great tool to support learning, empowerment, integration and other valuable things in society. We stand among them!

In CONNEXT and in this handbook we use relatively easy, accessible *game designs and digital platforms*, which can be adjusted to the group in question. But the same game design principles and ideas can be applied in offline games as well.

Every CONNEXT game has a purpose. The games lower thresholds and open up the opportunity to enter into a dialogue on important topics with participants. By means of games, we are able to connect more closely to the world of young people and appeal to

connext uses games to contribute to a process of empowerment and to create a sustainable learning effect so that players can participate critically and self-consciously in society.

their intrinsic motivation, which has a remarkably positive effect on their learning experience. This way, we not only want to strengthen their knowledge and skills but also to create a space for them to feel safe and continue growing in self-reliance and active citizenship. CONNEXT uses games to contribute to this process of empowerment and to create a sustainable learning effect so that players can participate critically and self-consciously in society.

Empowerment is based on the premise that everyone has the opportunity to learn, grow and change, but that strengths and competences that are already present must be given the opportunity to manifest themselves. If we really want to get something going and focus on long-term learning effects, then motivation is incredibly important. Only when people feel motivated to learn, there is room for new knowledge, skills and insights. For this reason we focus on games as a motivating learning tool.

We clustered our findings around four topics:

Game-based learning

Learning does not only happen in schools. You can learn everywhere. Game-based learning is the core of CONNEXT and the Game.Learn.Grow.Create model shows how to create and implement games.

Game-based empowerment

All of our games have a goal. CONNEXT is all about empowerment: a process of strengthening, discovering qualities and developing skills. CONNEXT aims to increase the self-confidence and autonomy of people through games and digital tools.

Co-creation

Games in CONNEXT were developed in co-creation departing from the idea that players should have the opportunity to contribute to the contents of the games they will play. This process provokes autonomous motivation.

Diversity

CONNEXT is all about the inclusion of a very diverse target group: refugees, migrants, NEETs. Game-based empowerment can be used to prevent early school leaving and to smoothen the path to the labour market as well as to society as a whole for newcomers. The same goes for dealing with sensitive issues such as gender equality and promoting a better understanding of diversity.

Following the principles of Serious Urban Games® (see p 10) developed by CONNEXT partner gameWise, we would like to emphasise the importance of the following advantages for everyone involved in game-based learning:

- ▶ Increase self-reliance: experience-driven learning can eliminate barriers and clarifies a diversity of available solutions for societal questions.
- ▶ Connect participants to social stakeholders in the area.
- Stimulate reflection and open dialogue.
- Experience the concept of group-dynamics.
- ▶ Have FUN!

We welcome you to become inspired by games!

THE CONNEXT TEAMS OF BELGIUM, SWEDEN AND FINLAND

CONNEXT games

Move, sweat, play and enjoy

If you thought that playing games on digital platforms means sitting down and being confined to staying inside, you are wrong. In CONNEXT games you sometimes move around and sweat!

> see p 19



#stadistartti

An existing city exploration tour of Helsinki was gamified in order to help newcomers explore the city and feel more at home in their new environment.

> see p 28



The house of resources

What gives you a good feeling? Game challenges in the form of writing, filming or voice recording made players think about their own resources and their self-esteem.

> see p 29



Trust in education

Co-creation in action: during Learning Labs and GameLabs teenagers expressed their views and wishes concerning school life and translated them into game challenges.

> see p 36



#work

Migrants co-create their own game challenges: "Now I'm no longer afraid to approach people I I don't know and now I understand how to do a a job interview."

> see p 38

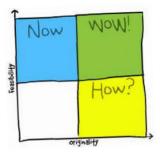


Equality on equal terms

In online transnational co-creation sessions we worked on gender-related game challenges. We enabled discussions about the benefits

of gender equality and the severe consequence of gender inequality!

> see p 48



Lockdown Minds™

How to maintain your mental balance in times of COVID lockdowns? Starting from an existing game on mental health we created a challenging and informative online version for youngsters in isolation.

> see p 54



CAN I PLAY CONNEXT GAMES WITH MY GROUP?

Many CONNEXT game challenges are documented in this handbook and on our website.

For the Finnish games you can go to www.metropolia.fi/gamesseriously.

For the Swedish and Belgian games to https://gamewise.io/en/connext-games.

Everyone is welcome to use and adapt CONNEXT challenges for their own purposes online or offline.

CAN I USE THESE GAME PLATFORMS?

Most digital game platforms used in CONNEXT are easy to use and don't require a high level of technical expertise. However, many of them involve a licence. Some of the platforms can be tested free of charge. Digital game platforms include gameWise's own SUG-platform.com and the Finnish platforms Seppo.io and Action Track. They enable participants to move around in the building or on the streets while completing game challenges. These platforms run on mobile phones or tablets, so they enable players to move around and go to different places.

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INFORMATION BOX

SERIOUS URBAN GAME® BY GAMEWISE

A S_U+G Serious Urban Game® by CONNEXT partner gameWise combines teamwork, technology, skills and knowledge to achieve a common goal. Participants take part in challenges and are encouraged by live feedback. At the same time, they familiarize themselves with societal themes, expand their horizon and acquire sets of 21st century skill.



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LIEVE ACHTEN, BRAM ALLEGAERT & LENNERT MOTTAR, gameWise

Each game is being developed for and in collaboration with the target audience. Our development process is co-creative and takes place in 3 phases: meeting the needs of and customized to the intended audience, incorporating their input and checking if the game effectively attracts the target audience.

By using the term 'Serious Urban Games®', we are putting our own mark on the more widely discussed phenomenon of 'serious games': a collection of different sorts of games (board and card games, video games, ...) that evoke insight or have learning experience as a key goal rather than mere entertainment.

Why so serious?

Much like a lot of other serious games, our Serious Urban Games® also deal with societal themes. They do, however, go beyond the 'spicing up' of serious subjects via games. A Serious Urban Game® wants to raise awareness, break taboos and empower our youth. Each game was developed via intensive co-creation processes in which our partners and a large group of diverse youngsters provide their input, co-develop our games and test them.

Why go urban?

Our urban games create both physical and digital interaction between youth and their

city or municipality. We do not only want to bring youth into contact with local inhabitants, city council services and organisations but also to pass on their feedback to local stakeholders and help them to influence policy. As such we hope that our games can contribute to a better city or municipality where everyone's opinion counts.

In our group of dynamical city games we let gamers explore the city. Using a smartphone or tablet they effectively interact with the city and its inhabitants, city council services and organisations. Next to that we also stimulate this interaction by offering a growing number of online game experiences. $Lockdown\ Minds^{TM}$

(see p 54) for instance was created in the first half of 2020 during the first wave of COVID-19, a fully online version of our Serious Urban Game®

A Serious Urban Game® wants to raise awareness, break taboos and empower our youth.

about mental wellbeing. This enabled us to reach individual youngsters and refer them to online counselling.

Interested in the impact of our games?

Read this <u>research</u> of Oomkens² ea, 2020) about the learning effects of our Serious Urban Game[®] No Credit, Game Over[®] by the Dutch research group Panteia.

- 1 S_U+G Serious Urban Game and No Credit, Game Over! are projects and registered trademarks by Lieve Achten.
- 2 Oomkens e.a. (2020), Proces en effectevaluatie No Credit, Game Over!.

Three reasons why

Game-based learning is a concept that focuses on learning in a pleasant and engaging way. But why should we use games in learning contexts? Is there any added value? The answer is definitely yes. Motivation increases, social skills are trained and learning processes become more effective.

_

LIESE MISSINNE, Artevelde University of Applied Sciences

Games as a motivational tool

Autonomous motivation

In order to create a long-term learning effect, motivation is incredibly important. A widely accepted and validated theory about motivation is the self-determination theory¹, where 'competence', 'autonomy' and 'belonging(ness)' are described as the three psychological needs (ABC-needs) that stimulate autonomous motivation. In the figure below, you can find an overview of the *ABC-needs of motivation* and how to encourage (or undermine) autonomous motivation.

In our CONNEXT practice the aim is to support these psychological needs in a balanced way. It is done by allowing players to define their role and actions in a game-based learning context. The participants are given a lot of choices while playing and allowed to become owner of their own game process. They can define the group roles of each group member and choose the order of challenges. Their voice is being heard and many more game elements stimulate their *autonomy*.

Additionally, it is important to carry out games together. The small group provides support and serves as an opportunity to feel connected to

Table 1. ABC-needs of motivation (Ryan & Deci).

Α	В	С			
Autonomy	Belonging(ness)	Competence			
Choice full Being owner of own behavior (self endorsed)	Feeling of relatedness, feeling of belonging to a group	Feeling competent			
BEING MYSELF	HAVING GOOD CLOSE RELATIONS	BECOME BETTER			
~	∀	∀			
	How to encourage this needs?				
Autonomysupportive environment	Connecting, warm and safe environment	Structuring environment			
\$	\$	\$			
How can this be undermined?					
Controlled environment (a lot of pressure, strees, rewards,)	Cold environment	Chaotic environment			



Serious games want to provide people with new insights and skills that lead to more competences and greater empowerment.

others. Games can bring people closer together and close the gap between teachers or supervisors, organisations and institutions. This stresses their belongingness.

An example of a game that stimulates the belongingness between people is 'All that we share'. A game master gives a statement, for instance 'I am a smartphone addict'. Every participant who agrees comes to the middle. The learning process consists in increasing reflections about each other's similarities rather than mere differences. This method is often used between people of different cultural backgrounds.

Furthermore, games always challenge participants. In order to win a game, they need to make an effort and they are challenged and perhaps even led to exceed themselves. This is often rewarding for all, because even if not winning, playing a game is useful and fun at the same time!

We are always looking for a balance between connecting to the existing living environment of the young person on the one hand and widening his/her horizon on the other. Serious games want to provide young people with new insights and skills that lead to more *competences* and greater empowerment.

And last but not least, for CONNEXT *autonomy* can be even more. A best practice example of this ABC-model can be found in the co-creation process of CONNEXT games. By actively involving young people in the development of games, the themes and approach connect to their world. This not only makes the content recognisable and relevant but also results in games that young people really like to play.

The more you are motivated, the better you learn. Motivation grows when you feel in charge of the choices you make, when you feel related to a group and when you feel competent.

FaCuCoCHa

Malone² defined four motivating elements of games. He called it the *FaCuCoCha-model*. Although this contribution of research is rather old, we see a lot of these elements recurring in recent research. These are overall effects of game-based learning:

▶ Fantasy = it is a safe private laboratory to explore and fail without consequences. Players

- can experiment and become competent in a 'safe zone'.³
- ► Curiosity = being triggered to find out more and more and go further and further.
- Control = players need to have the feeling that they can make their own choices and decide what happens. They have control, not the game master or somebody else!
- Challenge = triggering and challenging players to move just a little bit outside of their comfort zone, makes games attractive.

Recent research confirms this model. Koops⁴ explains in his gamification model that players stay motivated because there is a series of challenging tasks that stimulate their curiosity. This is exactly what happens in serious urban games. Other research⁵ confirms that structure plays an important role in motivating players. A game consists of different levels which are played step by step.



Series of challenging tasks stimulate the curiosity of the players.

Constantly being challenged just that little more is motivating. Players obtain competences and make progress. They will feel like the owners of their own accomplishments.

Escape rooms are a great example of the FaCu-CoCha-model: a group is dropped into a puzzle room and needs to solve all the riddles and the enigma in order to get out of the room before time runs out.

Games as a learning tool

Games can be effective for learning if they take into account some learning principles. These principles are lessons learnt from cognitive psychology.

_ PRINCIPLE 1

Direct instruction versus self-exploration

It is a myth that self-exploration or learning by experiencing is the best way to learn.

Games are supposed to encourage the self-exploration of the players, but it is extremely important that there are good instructions. Without a certain basic knowledge, for instance on how to use the device, which steps to follow or how to ask for help, players will be lost and self-exploring will have a negative impact on their learning process.

Therefore, it is important to know the initial situations of your players before playing the game. Ask yourself this question: what basic knowledge is still needed for them to play the game? Do they know how the device works? Do they know how to navigate safely in the city? Do they know how to read? Once you know their initial situation, prepare your instructions in such a way that they have all the basic knowledge needed to start with the game.

PRINCIPLE 2 Active thinking

The more a player actively thinks and the more he/she is engaged in the game challenges, the more he or she learns. A game is a perfect tool to stimulate active thinking processes. In the serious urban games that we use in CONNEXT players learn more than just the challenges: they learn to collaborate, to communicate efficiently and to solve problems. These are all high order skills. The reason why this is so powerful, is that the players themselves are actively engaged.



Assignments need to be both challenging enough and not too complex.

→ Therefore it is important to make the assignments both challenging enough and not too complex. We need to ensure that players are motivated to think about a solution and solve a game mission. So think about the *step-by-step structure* that is motivating for players to persevere in playing the game.

It is important
to debrief and reflect
on the game afterwards.
This is when learning
occurs and pieces of
the puzzle fall into place.

PRINCIPLE 3 Reflection and debriefing

It is important to debrief and reflect after the game. This is when learning occurs and pieces of the puzzle fall into place. Players reflect on their activities and make valuable connections in their brains.

→ Therefore it is important to ask some challenging questions which every player reflects about. They can be based on the 4F-model: questions on facts (what happened?), on feelings (what was it like?), on findings (what did you learn?) and on the way they perceive the future (what is next?).

PRINCIPLE 4 Spaced repetition

To enhance the long-term memory, it is important that learning processes are repeated several times. By playing a game only once, you can induce short-term memorisation. To have a maximum effect, it is best to spread and apply spaced repetition, with ever growing pauses in between.

→ Therefore it is important to repeat the things learned several times with every time a longer pause in between. Or you play the game several times with every time a longer pause in between. Or every time a different game but with recurring key skills that are central to the game.

PRINCIPLE 5 Dual coding

We have a visual and a verbal channel in our brain. When you stimulate both at the same time, people will process information better than when you only use spoken words to explain things. A game is an ideal tool to combine images, icons or videos with text.

→ Therefore it is important to use visuals next to text to explain game missions. Maximize comprehension by stimulating both channels in our brains.

PRINCIPLE 7 Feedback!

> Feedback is one of the most effective ways of learning. Also in games, feedback is necessary for a player to know if he did things right or wrong. Only then, the player will learn from his or her mistakes. Sometimes the device (tablet, computer, ...) gives immediate feedback linked to predefined answers. Sometimes the game master will have to be standby to give feedback.

PRINCIPLE 8 Facilitate the group process

Creating a few groups of four or more people and letting them play together a game alone doesn't necessarily lead to a good group process. As a game maker you need to take into account how group work can be stimulated and how every group member can take on a role and how he/she can actively participate in the games. Otherwise, you will increase the gap between the ones taking the lead and the others who are merely following. Group members should be individually accountable and positively dependent on each other. This simply means: everyone needs to have a task and every task is needed to complete the game.

Social skills

Commercial games often isolate teenagers from the outside world. In multiplayer games teamwork is needed, for instance to combat a joint enemy. They stimulate social relationships and players learn how to work together. In serious urban games, teamwork and relatedness to each other is central. After all, human beings are social creatures. The COVID-19 crisis has made us understand this even more. Social contact is a basic psychological need. Games that respond to this social aspect are more motivating.

For games to which group work is inherent, social skills are mostly a goal as such without players explicitly noticing this. Working together towards a goal, discussing solutions and learning from each other in a different context than formal education can be a promising method to acquire social skills.

CONCLUSION BOX



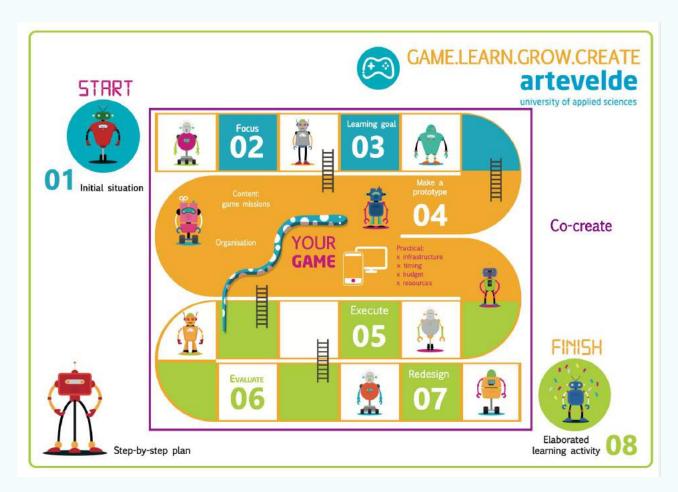
What have we learned?

- ▶ Consider game-based empowerment as a great added value, but not necessarily as a replacement for other useful learning methods.
- Co-creating games is the best starting point of your empowerment process.
- Be aware of the three psychological needs of every human being and try to meet them in your games: autonomy, belongingness and competence.
- ▶ Try to create an open atmosphere during your activities
- ▶ Increase the self-confidence and autonomy of young people through game-based empowerment.
- Make sure basic knowledge (e.g. about how to play the game, how to handle
- Discover other positive mental, physical and social effects of games for your specific target group.
- Ryan & Deci (2000), Intrinsic and extrinsic motivations.
- 2 Malone (1981), Toward a theory of intrinsically motivating instruction.
- Jansz (2005), The Emotional Appeal of Violent Video Games for Adolescent Males. 3
- Koops (2017), Gamedidactiek: het hoe en waarom van spellen in de les. 4
- Garris et al. (2002), Games, motivation, and learning; Gentile & Gentile (2007), Violent video games as exemplary teachers. 5
- Von Salisch et al. (2006), What attracts children.

Game.Learn.Grow.Create step-by-step model for game development

Convinced of the positive impact of game-based learning, it's time to go to the next level: how can we best co-create and implement games? Using a design-based research procedure, Vanderhoven, Carrillo and De Latter¹ developed a step-by-step plan called Game. Learn.Grow. This tool has been tested and modified by the CONNEXT partners to Game.Learn.Grow.Create.

LIESE MISSINNE, Artevelde University of Applied Sciences



Our framework for game-based learning in different contexts Arteveldehogeschool (Rika Devis, adapted by Liese Missinne)

__ STEP 1

Make an overview of the initial situation

Before you start, reflect about the initial situation of your group. Every class or group is different, every teacher or instructor is different and also every school or context is different.

Ask yourself the following questions about (1) the target group, (2) the infrastructure and (3) the context:

- 1. Who will play the game (target group)? How are the group dynamics? Do the players have experience in playing (technological) games? How much support do they need?
- 2. What infrastructure is available?
- 3. In which context will the game be played? Informal or formal education? Youth work?

_ STEP 2 Determine the focus

Think about what you want to accomplish by means of the implementation of games. What is the question that has to be 'solved' and what is thus the focus for your design of a learning activity with games? It is good to engage in a dialogue with the target group when determining the focus of the game.

Ask yourself the following questions: what is the main focus of the game? Why do you play it?

- 1. Learning goals?
- 2. Personal goals?
- 3. Group goals?

Keep in mind:
goals must always come first,
no matter what teaching aids,
technological aids
or infrastructure
you will use.

STEP 3 Determine the goals

Once you know the main focus, think about the different goals you want to accomplish. Specify them and make them more concrete. Keep in mind: to work in a goal-oriented way, goals must always come first, no matter what resources, e.g. teaching aids, technological aids or infrastructure you will use.

Ask yourself the following question: what are all the things you want to achieve with your target group?

- 1. Learning goals
 - a. What do they need to know after playing the game?
 e.g. to learn something about the system of migration; educational goals

b. What skills do they need to have after playing the game?

Also think about the 21st century skills (e.g. problem-solving, critical thinking, self-regulation, creative thinking, ICT and new media skills)

- c. Which <u>attitudes</u> are aimed at by playing the game?
- 2. Personal goals

e.g. to let the player feel more confident in applying for a job, learning more about themselves

Think about: initiative, commitment and perseverance, discipline and punctuality, dealing with stress, flexibility, creativity & innovation, self-knowledge (own motivation, strengths – weaknesses, preferences)

- 3. Group goals
 e.g. getting to know each other, team building, creating relatedness between groups,
 making connections / networks, communication, collaboration
- 4. Other goals?

_ STEP 4

Co-create your game

Determine the game activity you want to design, the content of the game, group organisation and evaluation. Remember to play the game elements with a test group that represents the target group. Co-creation can take place during the whole process of the game: at the start (input from the target group before making the game), during the making of the game prototype (feedback from target group) and/or the end (as a test group). Also think about your timing and your role as teacher or game master. In this step, also determine your resources and technical materials. In the illustration of the game process you can see that there is an interaction between all these elements and that they cannot be determined linearly. At the end of this phase you have a first detailed game activity.

Ask yourself the following questions:

- ▶ Which game elements and missions can contribute to the goals?
- ▶ What content is needed to accomplish the goals (step 3)?
- ▶ How does the input from the target group help you to make choices?
- What organisation is needed to accomplish the goals of the game (step 3)? e.g. should the game be played individually, in small or big groups, everyone simultaneously or at one's own pace

- ▶ What is your role as a game master? Give clear instructions about the organization of the game. Think about:
 - what the role of every participant is.
 - how the results should be registered.
 - what is expected once the game missions are finished.
 - how the participants can ask for help
 - how the group is divided
 - where to find the materials
 - how to start and exit the game and reboot (if necessary)
- ▶ How will you evaluate if the goals are accomplished?
- What resources and infrastructure are needed? Wifi, computer, tablet, smartphone, digibord, beamer?

_ STEP 5

Execute your game

Execute your learning activity with your target group. In the meantime, carefully observe what is happening.

Ask yourself the following questions:

- ▶ Is everything going as planned?
- ▶ How do the participants respond?

_ STEP 6

Evaluate your game

Executing game activities doesn't always go smoothly. It goes with trial and error. Therefore, always reflect on your game activity afterwards. Involve your participants in this phase in order to evaluate the game activity from different perspectives.

Ask the following questions:

- ▶ Goals:
 - How are the goals achieved?
 - Are there positive or negative unexpected side effects?
- ▶ What can be improved with respect to:
 - technology, infrastructure?
 - content?
 - organization, timing?
 - instructions?

STEP 7

Redesign your game

Really good learning activities are created by refining them. After playing the game several times, you will increasingly know what to pay attention to and you will be able to enjoy the use of the games. Go back to the previous steps and rethink and redesign what is necessary. Every time, keep in mind your goals when redesigning the game elements.

STEP 8 Finish!

You now have a well-developed game activity that you can be proud of!

CONCLUSION BOX



What have we learned?

- There is not one perfect game for every target group.
- Try to monitor, evaluate and redesign continuously.
- First analyse the user needs, motivation and behaviour.
- Then analyse the characteristics of the context.
- Ask yourself this question: is a game the best way to achieve my goal?

PS: And don't forget to check if there is any cheating in the game system ...

Vanderhoven, Carrillo and De Latter (2018), Developing good practices to facilitate the integration of digital games in the classroom: a design-based research.

CONNEXT@work Move, sweat, play and enjoy!

Some have the impression that playing games on digital platforms means sitting down and being confined to the inside. In CONNEXT, on the contrary, playing games often means walking outside, challenging one's sense of orientation and actively exploring one's environment.

MAI SALMENKANGAS, Metropolia University of Applied Sciences

In many countries the decreasing levels of physical movement and sports among youngsters and migrants has created particular concerns. This tendency is carefully considered also in CONNEXT. Therefore the project has defined the focus of some of its games to include physical activities and sports: move around and sweat while playing and having fun!

Some examples

- Sports training. During the COVID-19 lockdown, YMCA Helsinki continued coaching youth for basketball from a distance through weekly game challenges. In one of them, called Beat the
 - coach, the coach shows a fast-paced exercise on film, followed by these instructions: "Make a short film of yourself doing the same exercise with the coach and download it on the game platform. Do your best, but don't worry if you cannot be as fast or do as many movements as him - it's really difficult to beat the coach!"
- Orientation to different sports. During a sports day at Omnia Vocational College the students were invited to try out different sports through game challenges. The instructions for one of the tasks were: "Take nordic walk poles and go for a brisk walk following the game map. On your way, look for these elements and take a picture of each of them: birch, pine cone, maple leaf, acorn, flower."
- "Do your best, but don't worry if you cannot be as fast or do as many movements as him. It's really difficult to beat the coach!"
- Exercises while playing. When Boys' House introduced the centre of Helsinki to newcomers in a gamified way, physical activity was automatically present because the locations were fairly far



YMCA Helsinki summer workers carrying out physical game challenges.

apart. One of the game challenges requested even more: "This is the Helsinki Cathedral, which was built in 1852. It is one of the best known landmarks of the city. Calculate the number of stairs in front of it and insert the right figure here."

Often sports and gamification activate and engage participants in a similar manner. As the above examples show, physical activities and gamification can also support each other. At times when face-to-face encounters aren't possible, game challenges can maintain physical activity of those actively practising sports. Vice versa, game tasks can be designed to introduce different sports or to encourage physical activity for those who may benefit from more physical exercise.

Dressing an old course in a gamified gown

When creating games, it's not always necessary to start from the very beginning. Sometimes it may be more meaningful to take an existing material, a course or another activity and start turning that into game challenges. When you are familiar with the content matter, all you need is some support on simple, lowthreshold game design!

One good example of this is the 'Organise an event' (Järkkää tapahtuma) training designed by the Sports Federation of Southern Finland. The aim of the training day is to familiarize young people with the steps that need to be taken when planning and organising a fun, activating sportive event. In CONNEXT this training was gamified and while doing so, the young participants were given a more active role in the training day.

Some examples of game challenges in the 'Organise an event' training:

- Plan a short radio advertisement for your event and record it.
- Write down on the game platform all roles and tasks that are needed when organising a sportive event.
- On this spot there are various equipments for doing exercise. Plan and film an instruction video on how you would carry out a fun gymnastics exercise during a quick break in the middle of another activity.



Sports and gamification is often a perfect combination.

P.S. If you are planning to gamify some material you haven't produced yourself, please ensure the copyright owner's permission to do so!

Competition in games good or bad?

In CONNEXT we discussed whether competition is a good idea when designing and using games. Everybody in the room took a position ranging from totally agree to totally disagree. Opinions on this question were very divided.

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LIESE MISSINNE, Artevelde University of Applied Sciences

ARGUMENTS FROM THE 'AGREE' SIDE

- ▶ Competition is a motivating element, it drives you to do things better and faster.
- ▶ Competition in itself is fun and thrilling, it excites people!

ARGUMENTS FROM THE 'DISAGREE' SIDE

- ▶ Competition has a negative impact on the ones that are losing.
- ▶ Competition can have a negative impact on the self-esteem of people.
- Competition often means working with a time limit. Speed and tempo can impede going into depth.

 The only goal is winning and mostly this means going as fast as possible.

 A quote from the Finnish delegation: "Playing a game is fast, learning is slow."

I have to do it

From a theoretical perspective we can link this to the self-determination theory. Mostly competition stimulates *controlled motivation*, meaning that players feel pressure because of the competition element in the game. Once the competition stops, the player is not motivated anymore to do the game or task. So if you want the players to stay motivated, you cannot stop giving rewards or prices. It can also have negative side effects: the players on the losing side are not motivated because they don't stand a chance anymore. They are only motivated because of the reward and once the reward is gone, they stop competing. You can compare this with exam marks in education: it is never fun to have the lowest score in your classroom...

Players can also be competitive themselves, one player might be more competitive than the other. This is what can be defined as introjected regulation. The players are forcing themselves to compete with one another, irrespective of whether

the game is for winning or not. They feel some kind of internal pressure that motivates them instead of the external pressure originating in rewards or points.

Autonomous motivation stimulates more deep level learning, more transfer and persistence during the activity of the game.

I want to do it

However, competition can also stimulate *autono-mous motivation* when competition is useful for personal value or when competition in itself is conceived of as being fun.

Competition can be made personally valuable when players are not comparing themselves with others, but when competition stimulates personal goals, challenges themselves to become more competent in a certain skill. In running apps this

is often used as personal goal setting. Competition then becomes less pressured and more personally valuable. So when you compete with yourself to become better and better it has positive effects on your motivation because you are striving for yourself to gain compentence and you are less competing under the pressure of time or rewards. Competition can also be seen as an excitement and a thrilling element on its own. Some people are real competitors and think this is fun, others don't feel the same way. This explains why the positions during our discussion amongst the partners was so divided.

	EXTRINSIC MOTIVATION			INTRINSIC MOTIVATION
TYPE OF REGULATION	1. External regulation	2. Introjected regulation	3. Identified regulation	4. Internal regulation
I'M MOTIVATED THROUGH	External pressure e.g. money, rewards, punishments, time pressure	Internal pressure e.g. fear, pride, guilt, shame,	Usefulness, personal value e.g. practical value, relevance,	Enjoyment, interest e.g. fun, my passion, pleasure,
COMPETITION?	Competition/winning elements (rewards/ price / money/badges) in the game = a tool for comparing and winning only for the reward. ! Most used form!	Competition to yourself = forcing yourself	Competition can stimulate personal goals, challenge yourself, personal goal-setting to achieve competence (e.g. used in running apps)	Competition itself as being FUN, excitement, thrilling
TYPE OF MOTIVATION	Controlled motivation (=I HAVE to do it, I feel pressure)		Autonomous motivation (=I WANT to do it, I don't feel pressure)	

Effects

Controlled motivation has shown to have less positive outcomes compared to autonomous motivation. Controlled motivation stimulates more superficial learning, less transfer and less persisting behaviour. Autonomous motivation stimulates more deep level learning, more transfer and persisting in the activity of the game. Meaning: if your players only play the game in order to win,

they will be learning less deeply (cf. going into depth when there is no time limit), make less transfer of what they have learned to the real world (which is important for a serious game, because we want that the players to transfer and apply what they have learned in the real world!) and they will persist less.

CONCLUSION BOX



What have we learned?

- ▶ It is a complex story and there is not one answer to the question 'Is competition' a bad or good idea?'.
- Competition can provide motivation in multiple life domains, in a negative and positive way!
- Game design should really consider a human-centered approach.
- Why not ask the target group if they think competition would be added value to the design of the game?



"GAMES ARE MORE THAN JUST THROWING BADGES AT THE PROBLEM"

In running app's badges, points and a leaderboard are frequently used to motivate runners to achieve goals. The question is: will they keep their motivation once the rewards and points are gone?

The same is true for serious games. This topic was thoroughly discussed by researcher Lobna Hassan in a Virtual Gamified Diamonds Seminar organized by CONNEXT in August 2020.

Rewards are only one tiny element of games: "Games are more than the collection of game elements". So the question is not 'are rewards always needed in games?' but rather: 'Are rewards meaningful in my game and why should I use them?' This means that when you design a game, you need to take the whole context into account: who are you designing a game for? For what purpose?

"I don't like the definition of gamification as the 'use of game elements' because it implies just throwing badges at the problem". A human-centered design is needed. Just taking a problem and making a game out of it by adding some badges or points or other game elements ... doesn't usually work. It certainly doesn't work for long-term engagements.

A more holistic analysis is needed and most of all: games are more than their individual parts: 1+1=3. It is the combination of certain aspects that makes a game successful for a certain group.

In Cullman county in the United States, a school was redesigned into a Harry Potter themed school, with a lot of game elements. The reason was that a lot of at-risk kids (with poor home conditions, limited resources;...) showed disengagement from school. The purpose of the school makeover that took several years





School in Cullman County before and after the Harry Potter make over.

was to keep kids at school and create a home-like space. "The school clearly uses many of the classical gamification design elements such as competition, collaboration, clear rules, roles, badges, trophies and aesthetics." The results and behavioural outcomes of this Harry Potter themed school were important: school engagement, better academic performance, school ownership, less negative behaviour, significantly less detention. And some cheating (which seems unavoidable...).

At the school, rewards and points are used to motivate students to behave better. "Hogwarts, throughout the novels and movies is mainly run by dividing students into 4 large teams (houses): Gryffindor, Hufflepuff, Ravenclaw and (the beloved) Slytherin. Every year, students belonging to these houses compete on who can win the most points for their house so that by the end of the year they can win the Hogwarts house cup. Expectedly, competition – facilitated by the 4 Hogwarts houses and the point system – does push students to work harder but it also does lead to negative behaviour, at the fictional Hogwarts, such as bullying. Competition led to cooperation inside the houses where we see students helping each other perform better so the house can earn more points and win the house

cup. Learning goals and outcomes became embedded in the large, engaging competition."

Cheating and (hyper-)competitiveness must be taken into account when using this reward system. In the Harry Potter school this more holistic approach is used, because this reward system is used as only one little element in the whole concept of the Harry Potter game setting school. The holistic, thoughtful im-

"Games are not magic engagement pills made out of points and badges, good games are bigger than just giving rewards."

plementation led to a significantly more positive impact on students rather than negative. "Designs reliant on 'throwing game elements' at the problem don't usually work," Hassan concludes. "Games or gamification are not magic engagement pills made out of points and badges, good games are bigger than just giving rewards."

¹ Hassan, L. (2018). Enter Hogwarts: lessons on how to gamify education from the wizarding world of Harry Potter.

Empowerment a CONNEXT cornerstone

People that are not in education, employment or training belong to a very vulnerable group in our society. They are often held responsible for their own situation while the strengths they possess are not noticed or stimulated. Empowerment is one of the cornerstones in the field of social work and an important framework in engaging with disadvantaged people. Therefore empowerment is also a cornerstone in CONNEXT. But what does it mean?

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VANESSA VANHOOREN, Artevelde University of Applied Sciences

What?

Empowerment is *goal-oriented* and value-based. Its central goal is the participation of citizens. Social justice, democracy, pluralism and diversity are its underlying values.¹

Empowerment is the process of *strengthening* in which individuals, organizations and communities get hold of their own situation and environment,

Each individual has the possibility to learn and grow.

by acquiring control, critical thinking and the stimulation of participation.²

This approach is not only focused on plausible problems and risks. It recognizes the vulnerabilities and the experiences of the target group but starts from a *positive approach* in which the core is strength-oriented.

Empowerment starts from two assumptions.

- Strengths are present within each individual and their environment.
- ► Each individual and every environment has the possibility to learn, to grow and to change.

The process of empowerment starts when existing strengths are traced and addressed. *Strengths and vulnerabilities* are intertwined, they are not opposed. The lens of empowerment is focussed on the positive aspects. It starts from the idea that the target group has competences and strengths and provides permanent opportunities.

Some characteristics

Relational lens/perspective

Empowerment is about *shared responsibilities* in which there is not only a focus on tracing individual strengths but also on creating conditions in the environment. It presupposes an interaction between society and groups, individuals, communities. Empowerment is about creating positive and strength-oriented connections between different levels, such as individuals, groups and organizations.



'Enabling niches' are environments in which growth and development are created and facilitated.

Dual core

Empowerment has a dual core, on the one hand it is about empowerment of the individual, on the other hand it is about creating *empowering conditions*. So it is related to different levels of the target group:

- Individual level: developing skills and exploring strengths and qualities.
- Collective level: to harness resources in the environment
- Broader and political level: changing prejudices and making resources and institutions accessible.

Empowerment has a dual core, on the one hand it is about empowerment of the individual, at the other hand is about creating empowering conditions.

Enabling niches

Dialogue between the different stakeholders is an essential element of empowerment and should be focussed on expanding and protecting insured rights. Relations of dependence shift to partnerships on all levels. The relationship between the coaches is characterized by enabling and stimulating a reinforcement process among participants, the target group and the environment. Coaches are facilitators. In literature you can find the word 'enabling niches'. These are environments in which growth and development are created and facilitated. Enabling niches are places where people feel physically safe and socially valued. They are environments that stimulate rather than restrict, where the target group is able to develop a sense of self-worth and where people are invited to participate.

- 1 Van Regenmortel (2012), Lexicon van empowerment.
- 2 Coussée (2011), Uit de marge van het jeugdbeleid.



15 CRITERIA FOR EMPOWERMENT

Judi Camberlin, leading lady in activism for mental health care and training director at the American National Empowerment Centre, defined 15 qualities that must be deployed in order to be able to speak of empowerment. Chamberlin worked with patients in mental health care but these qualities are also indispensable to young people in today's society.

1. Having decision-making power

Young people are considered competent to make their own decisions and are also given the freedom to do so.

2. Having access to information and resources In order to make informed decisions, young people need to be able to inform themselves.

3. Having a range of options from which to make choices (not just yes/no, either/or)

Meaningful choices can only be made when a wide range of options is available.

4. Assertiveness

Be able to stand up for yourself, develop your own wishes and expectations and get the space to express them.

5. A feeling that the individual can make a difference

A hopeful image of the future gives one the feeling that change is possible.

6. Learning to think critically; unlearning the conditioning; seeing things differently; e.g.

- a) Learning to redefine who we are (speaking in our own voice).
- b) Learning to redefine what we can do.
- c) Learning to redefine our relation-ships to institutionalized power.

7. Learning to recognise and express anger

Being able to be angry in a safe way and within certain limits.

8. Not feeling alone; feeling part of a group

Feeling connected with others, making progress together.

9. Understanding that people have rights

Being aware of their rights gives young people a more confident and stronger feeling.

10. Effecting change in one's life and one's community Empowerment is more than just a feeling. When

someone really brings about change in his or her life or environment, a sense of control is created.

11. Learning skills (e.g. communication) that the individual defines as important

The motivation to learn is higher when young people are able to decide for themselves what is important and do not only have to learn what is imposed from

12. Changing others' perceptions of one's competency and capacity to act

Young people who determine their own needs and act accordingly can blur stereotyped thinking patterns in others and earn respect.

13. Coming out of the closet

All possible topics can be discussed, nothing is taboo. The term is taken from the LGBTQ+ scene to show that daring to show one's own identity is good for self-confidence.

14. Growth and change that is never ending and self-initiated

Empowerment is not a goal but a process. There is no end point after which further growth is no longer necessary.

15. Increasing one's positive self-image and overcoming stigma

Empowered young people have more self-confidence and feel more capable. As a result, they take more control of their lives and their self-image will grow again.

CONCLUSION BOX

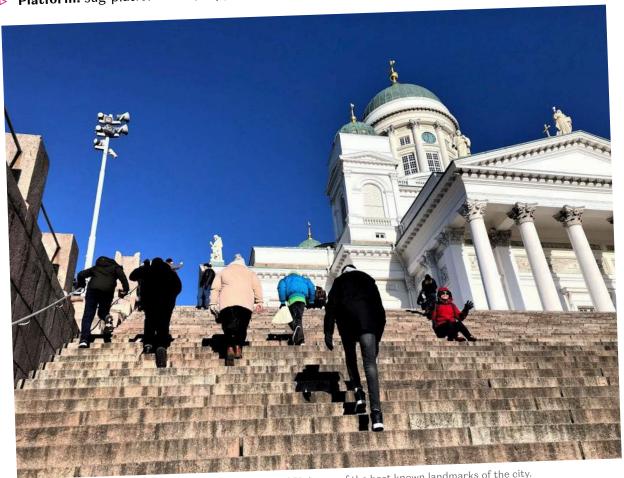


What have we learned?

- ▶ The central goal of empowerment is participation of citizens.
- Working on the individual level is as important as working on the environment and influencing politics and institutions.
- ▶ In different games that we used in CONNEXT we worked on these different levels of empowerment. A concrete example you can find in #work. Players develop their skills and get in contact with labour services.
- Empowerment is all about shared responsibilities.
- Camberlin (1997), A working definition of empowerment.

CONNEXT@work #stadistartti

- ▶ **Goal of the game:** Newcomers to the city and perhaps to the whole country learn to orientate and feel more at home in a new city. The game expands its users' territory and lowers the threshold to get engaged in different activities around the city.
- ▶ **How:** Together with others, players carry out game challenges in different parts of the city. The challenges consist in identifying buildings, using public transportation, asking for advice etc.
- Development method: An existing city exploration tour was gamified by Helsinki Boys' House in Finland and tested by youngsters from migrant communities engaged in the activities of Boy's House. An adjustment of the game challenges was prepared for foreign professionals visiting Helsinki for a gamification workshop.
- Platform: sug-platform.com, seppo.io



Game task: "The Helsinki Cathedral, which was built in 1852, is one of the best known landmarks of the city. Calculate the number of stairs in front of it."

CONNEXT@work The House of resources

Metropolia University of Applied Sciences and Helsinki YMCA turned the existing material called The House of Resources into game challenges so that players could identify and utilize their own resources better.

TIINA LEHTO-LUNDÉN, Metropolia University of Applied Sciences

The House of Resources (*Voimavarojen talo*) prepared by Mieli ry and Mental Health Finland guides participants to consider everyday factors that affect mental health. Identifying one's own resources may strengthen one's self-esteem and sense of well-being as well as give tools to move towards the future. The House of Resources game challenges include nine themes. Here are some examples of attached game challenges:

- ▶ Theme 1. Who are you? How are you? Come up with three words that best describe yourself. Think what others have said about your character: How have you been described?
- ▶ **Theme 2.** Which things have brought you a good feeling during the past week? Write down five things that will make you feel good in your daily life. Do you feel you do these things often enough?
- ► Theme 3. How do you relax? What is your favourite place and why do you like this particular place? Share a photo of the place.
- ▶ Theme 4. What kinds of collective activities do you find pleasurable to take part in? What hobby would you like to try out? What would you like to do or try? Present this activity on a video or find a picture that relates to this hobby.

Feedback from game participants was encouraging. Youngsters appreciated the fact that game challenges could be carried out in multiple ways, for example by

Youngsters appreciated the fact that game challenges could be carried out in multiple ways, for example by writing, filming or recording voice. writing, filming or recording voice. In particular, they appreciated activities outdoors and photography related challenges. The freedom to play and the lack

of pressure also felt good. Quote from one participant: "After a long break, it was nice to write because this was not graded like at school, and so you couldn't so-called fail. Instead, you could practise conditions that correspond to school assignments, which usually cause me tremendous anxiety."

Participants also felt that playing brought extra content and fun into everyday life, which was particularly valuable during the COVID-19 lockdown. Gamification can be definitely used to strengthen self esteem as well as a tool of empowerment. It is important to recognise that the game challenges as such are a method and the discussions and shared thoughts after playing are the keys to deepen the learning experience.



Co-creation for a good reason

CONNEXT-games are developed in co-creation, starting from the idea that everyone is an expert on one issue or another, first and foremost in his or her own life. For CONNEXT this means that all stakeholders are involved in the whole process, also the players. In fact they should be the key actors in determining the content of the game.

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GRIET VAN HERCK, Artevelde University of Applied Sciences

Collective creative process

Co-creation – the prefix 'co-' is derived from the Latin 'cum', meaning together – is used in English as together, mutually, in common. The etymology of the word highlights the key features, which are the social dimension and the act of creating, which is more complex than simple production.

The mix of those two words adds another meaning,

which is not only creating collectively, but creating something that has a value, for a mutually beneficial goal.

The term is really a buzzword used in different settings without consideration of what it actually refers to. It pops up as a format for designing workshops, conferences and all kinds of events. However, often these events are not more than harvesting knowledge and sharing experiences from various participants. This

sounds inclusive and attractive but is not co-creative. In the guidebook 'The art of co-creation' we find the following definition: "Co-creation is a creative process that taps into the collective potential of groups to generate insights and innovation."

Human centered design

In CONNEXT, co-creation is based on the concept of human centered design. By designing the

games, we start with understanding the human and context surrounding. This requires involving everyone in order to reach a common goal. In the first place, we involve our target group. Every participant, with his/her own background, interests and perspective, has an influence on the process and the result of it. By working directly with them, we come up with new ideas that are viable and appropriate in their context. It helps to determine and solve the right problems, to

stimulate ownership and to draw out the talent, the capacity and the resources that people have. Furthermore, it improves social skills through the group activities that encourage cooperation.

Ownership will emerge
when people feel
that they are part
of something, or when
they have made
something themselves.
It makes them both
proud and willing
to commit.

Added value

Before we start, we have to ask ourselves if the problem or challenge we want to tackle really needs a co-creation process in order to find the right answers.

Do not co-create because it's a hype, that's not efficient and a waste of time. Co-create for a good reason. In case of complex social issues such as unemployment, early school leaving, integration of asylum seekers, there is a need for several perspectives because the issues are not easy to solve. And we can't handle it alone. So, different perspectives will lead to better and more sustainable solutions. As Albert Einstein once said: "You cannot solve a problem within the same thinking that created it."

What we also experience is that, in a top-down approach, it happens that users or other stakeholders are not into your story. This has the result that you don't get support. If you want to create motivation and active engagement among all the people that are involved, co-creating is a good option. And... it's nice and entertaining to dialogue with others.

Ownership will emerge when people feel that they are part of something, or when they have made something themselves; it makes them both proud and willing to commit. When solutions are co-created, it gives the people involved a concrete view of their options. They get to see how things could be handled or changed, which gives them perspective to make informed choices afterwards.

As a result of a brainstorm during a meeting in Karlstad we came up with different arguments to believe that co-creation offers many benefits:

- ► The decisions taken and results are of a better quality.
- ▶ People's involvement increases.
- ▶ People have more energy to implement.
- ▶ Mutual relationships grow stronger.
- Mutual trust is being built.
- ▶ Innovation is stimulated.
- Organizations learn to deal with changes better.
- Development opportunities for the organization are detected.

Co-creation toolkits

In this part we outline two co-creation *toolkits* to shape your actions in a participatory way. As you will see, they are step-by-step plans that are similar to each other. In each toolkit you find several inspiring *methods*. As a facilitator, you follow the steps and choose the techniques appropriate to your group, goals and context. Furthermore, each co-creation process requires an open and flexible *approach* of the facilitator.

LCD method²

The LCD toolkit is a step-by-step methodology inspired by the IDEO toolkit and developed by Demos in Flanders. It runs according to three phases: listening (inspiration), creating (ideation) and doing (implementation). It is a method for developing and realizing a project in a participative and planned way taking into account the

perspective of the user and other stakeholders. Each phase – listening, creating and doing – is again divided into smaller steps and proposes a few methods per step.

Clicking the website, you find several creative methods and game dynamics which can be used while co-creating. In the next chapter we also talk about this.

IDEO toolkit³

The extended step-by-step methodology consists in 5 phases: empathize, define, ideate, prototype and test.

Empathize

In the first phase you'll learn directly from the people you're working with as you immerse yourself in their lives and come to understand their interests and needs. In order to deeply understand them, you need to observe, listen actively and put yourself in the situation of the participants. Listening is about being compassionate and connecting with the other person. The key to figuring out what participants really need lies in empathy. From a researcher's point of view, empathy is the ability to sense other people's emotions, coupled with the ability to imagine what the other might be thinking or feeling. According to Brené Brown⁴, empathy is communicating the message of 'You're not alone.' Her point of view on empathy is an added value to previous descriptions because of her focus on the healing message. In situations where participants share their vulnerability, the feeling of being heard is so important. Listening to each other and sharing our stories reduces shame and has a positive effect on selfworth feelings. Once you know what their concerns or interests really are, you can clarify the learning goals in general and also the personal learning goals for each member specifically.

Define

In this phase you make sense of what you have learned about the participants, about their needs and about their interests.

Ideate

Here you generate tons of ideas through creative and curious activities, by using techniques such as brainstorms etc ... The main focus of the ideation phase is to use *creativity and innovation* in order to develop solutions. In guiding



When solutions are co-created, it gives the people involved a concrete view of their options.

participants along this phase, facilitators have to propose different methods to help participants to structure the ideation processes in an efficient way. A common approach in co-design is that multiple ideas may be formulated and the group has to decide which is the best one. The facilitator may help participants in creating a criteria set in order to do the ranking. A good example is the ranking method for Prioritisation (proposed by the organization 'Seeds of Change'). This method takes 10 to 20 minutes and is suitable for groups.

Prototype

Next, you're going to quickly build a simple prototype of your idea. This makes it tangible and gives you something to test with the end-user. Ask yourself this: What can I spend the minimum amount of time on that will allow me to get user feedback as quickly as possible? The purpose of this phase isn't to create the perfect solution; it's to make sure your proposition is on target. Get your simple prototype into the hands of the people and ask feedback. This is the most critical phase of the human-centered design process. Once you get feedback from your users, use that information to fuel changes to your design.

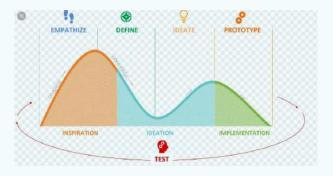
Test

Keep testing and integrating user's feedback until you have fine-tuned your solution. This may take a few rounds, but don't get discouraged. With each iteration, you'll learn something new. Iteration is essential because we know that we won't get it right the first time. Or even the second. Iteration allows us the opportunity to explore, to get it wrong, to follow our hunches, but ultimately to arrive at a solution that will be adopted and embraced. We iterate because it allows us to keep learning.

Now that youhave validated the usefulness of your solution with the end-user and gotten your design just right, it's time to get your idea out into the social field/market.

Whatever you design, such as digital games, go back to phase 1 (empathize) and repeat this process. With each new update that you implement, continue to listen to your users to co-create and use their feedback to direct your future solutions. You will notice your game will be a success because you have involved the people you are looking to serve at the heart of the process.

Scheme toolkit 1 and toolkit 2 together⁵:



Methods

In the toolkits you will find a lot of methods and group dynamics. They are categorized in order to define at what point of the process they should be applied. In CONNEXT they have successfully been applied in #WORK and the co-creation process of the gender awareness game.

To be even more inspired you find good practices on the website www.cocreate.training.

Some examples from this handbook

- ▶ Introductions and endings: Pair Introductions, Name Games, Personal object name, Selfie, People Bingo, Excitement Sharing, Feeling Sharing, Personal Object Name, Writing a Letter to Yourself;
- ▶ Building trust: Picture Yourself, Snake, Human knot, Trust Circle, Mine Field, Mirroring,
- Participation and discussion: Talking Sticks, Group agreement, Go-round, Ideastorming, Small Groups, Role plays and Simulations, Fishbowl;
- ► Tackling difficult issues: Controlled Dialogue, Feelings Meetings, Reverse Role Play;
- Prioritising and planning: Show of Hands,
 First to Five, HOW-NOW-WOW, Stickers and
 Dots, Ranking;
- ▶ Evaluating: Summing up Rounds, Questionnaires, Kahoot.

Game developer competences

To be comfortable as a facilitator of co-creation processes you need some specific competences:

▶ have an understanding of different cultures, languages, traditions,...

- value other people's capacities and abilities
- embrace ambiguity
- ▶ be flexibile towards new ideas, facts, opinions
- be open-minded
- have patience
- think out of the box

Primary stakeholders
in CONNEXT are the players
themselves. They have a huge
influence on the content of
the game as well as on the game
dynamics during playing.

Stakeholders

In the ideal situation all stakeholders are involved in the co-creation process at the same time: authorities, NGOs, professionals, private sector, experts. Their perspectives and interests towards the topic of the game are essential to be taken into count.

Primary stakeholders in CONNEXT are the players themselves. They have a huge influence on the content of the game as well as on the game dynamics during playing.

Secondary stakeholders are those with an indirect interest in the result of the co-creation process. Because of their social, economic or political power they have an impact on the achievement of the goals of the project. They have knowledge,

What makes a good facilitator?



OPEN

Unafraid to enjoy the company of participants and insert humour where appropriate.



RELAXED

Does not show stress or create tension.



ANALYTICAL

Able to find connections between conversations and exercises in order to help participants make sense of their contributions.



METICULOUS TIME MANAGER

Plans time well and always respects other people's time.



FLEXIBLE

Able to pivot and switch content and schedule with ease.



COMMANDING SPEAKER

Projects well (or brings the right equipment to project their voice).



GREAT LISTENER

Able to listen deeply. Shares the space for participants to speak and generates encouragous responses or builds.



MODEST

Distributes praise generously but doesn't need to receive any.

Mindset human-centered approach⁶



The key features of co-creation are the social dimension and the act of creating, which is more complex than simple production.

experience, responsibilities or claims over the resources. As the outcome of any co-creation process will affect them in one way or another, their participation is critical. Therefore, facilitators of co-creation processes will necessarily have to plan when and how to involve secondary stakeholders in the co-creation process and include their interests and influence.

Opposition stakeholders are those identified with the capacity to influence outcomes in a negative way. While they will probably not agree with decisions, it can be useful to consult them.

Unfortunately, women, people with other ethnical background and impoverished communities are often marginalized stakeholders. They could be in fact primary, secondary or opposition stakeholders. They usually lack the possibility to participate in collaboration processes at the same level as others. But in CONNEXT they came first!

CONCLUSION BOX



Check the important steps of a co-creation process in game-designing: ▶ Listen and deeply understand participants' needs

- Define goals in terms of participant behaviour
- Engage all stakeholders
- Generate ideas
- Develop prototypes
- Keep testing
- Check commitment
- Rill and Hämäläinen (2018), The art of co-creation, a guidebook for practitioners.
- www.demos.be/LCD 2
- 3 www.designkit.org/methods
- www.brenebrown.com 4
- www.designkit.org. 5
- Unicef, www.hcd4health.org/resources.

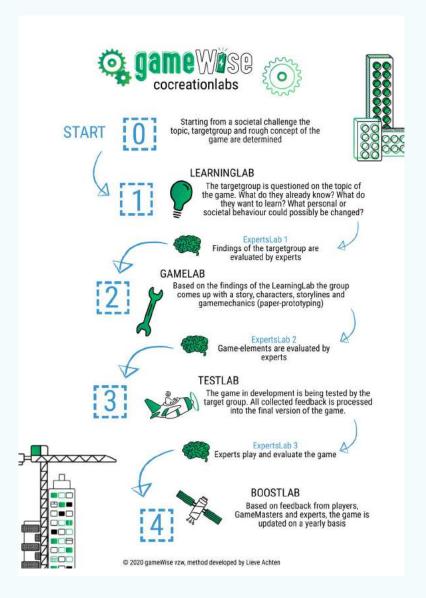
The power of co-creation

In CONNEXT we believe in the power of co-creation. All of the games in the CONNEXT project have been co-created with youngsters and professionals. In order to end up with a game that truly speaks to youngsters, we have asked for their active participation in the entire development process. And what's more: this process in itself has proven to be an empowering experience for the participants as well!

BRAM ALLEGAERT & LENNERT MOTTAR, gameWise

gameWise's own co-creation method1 allows participants to express their insights in a serious topic through (digital) storytelling and reflection and enables them to not only be involved in the evaluation of the end result, but also to be engaged in determining form and content of the game, starting from their own experiences and expectations. It's a unique chance to let youngsters work together on a project in which they feel from the start they will have an impact. We are truly listening to them, learning from them and taking their input seriously. The whole process consists of three consecutive workshops: LearningLab, GameLab and TestLab.

During the LearningLab participants will gain insight into the theme; what do they already know and what do they want to learn. In the GameLab the story, storyline and tool mechanics will be defined. This will result in a paper prototype, on the basis of which our creative team will build a first prototype of the game. In the TestLabs, this prototype will be evaluated by all users for its usefulness and further finetuned before release of the final game.



1 Originally called the Drøme methodology, created by Lieve Achten for gameWise.

CONNEXT@work Trust in education

In order to illustrate how these LearningLabs, GameLabs and TestLabs work, let us tell you the story about the development of the CONNEXT Serious Urban Game® Trust In Education.

BRAM ALLEGAERT & LENNERT MOTTAR, gameWise

LEARNINGLABS

The goal of the LearningLabs was to ask the students how they feel about school, what their likes and dislikes are and what opportunities they see to improve the educational system. This way, we were putting into practice some of the findings and tips that are provided by Deci & Ryan's Self Determination Theory. We have designed some exercises with a specific goal to let participants reflect on their motivation to go to school, on their perceived level of autonomy, on what they have in common with their classmates and even their teacher... Provisional results from these LearningLabs are not really surprising: students find that the relations amongst students and between students and their teachers could be a lot better, they all experience a lot of performance stress, they feel the educational system is heavily outdated,

GAME DATA SHEET

- Theoretical framework: Self Determination Theory (Deci & Ryan)
- Goal of the game: prevent school drop-outs by augmenting the autonomous motivation of youngsters to go to school.
- How: in a series of challenges a class of students, together with their teacher, finds out what connects them, how they can gain more autonomy and how they can validate their own competences and skills.
- Development method: co-creation labs with over 250 youngsters (15-19 years old), teachers and youth workers from all layers of the school system and from all over the country.
- Cocreation partners: Artevelde University of Applied Sciences, vzw aPart, Groep Intro, Vlaamse Scholierenkoepel (VSK).

they fail to see the use of many of the subjects taught and they don't have enough choice between these subjects, they think there are too many (unnecessary) rules at school, etc. ...

From this extensive input, it is hard to see where we could begin in tackling all of these topics in one game. One thing that is for sure is that the focus on mutual trust and (re)gaining motivation is a focus which entails the broad spectrum of the topics listed. One clear outcome from these labs was that the whole process of playing these small games, doing these group dynamic exercises and

From these challenges we immediately gained a lot more input than we did from more traditional methods we used in LearningLabs, like group talks. listening to and learning from each other proved to be a very positive and motivating group-experience that was positively evaluated by the students and the teachers.

GAMELABS

Let's zoom in a bit further and take a look at the GameLab experience of one group. Class 'Black' as they were called (and I'm not inventing this), is an OKAN class of Brussels based school Anneessens Funck. OKAN offers foreign students (mostly newcomers) a one-year, focused study of the Dutch language. These studies enable students to soften the transition into secondary education.

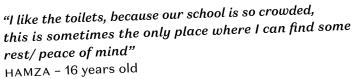
The students of class 'Black' played a series of game challenges which were based on the input that we gained from our Learn-

ingLabs. From these challenges we immediately gained a lot more input than we did from more traditional methods we used in our LearningLabs, like group talks. This group could definitely express themselves a lot better in a game-challenge than they could in a traditional exercise. Some examples might make this more clear: in one challenge the participants were asked to take pictures of their favourite places in school. Although there weren't many, these pictures did give us some insights into the student's perception of their school and to what's important to them. Insights we otherwise wouldn't have been able to capture in a short workshop:



"The playground looks big, but is in fact quite small when we're all together there. The soccer goals are on the basketball field which has resulted in fights between students"

VLAD - 16 years old





"I think it's a pity that we can't hang around in the stairways: It's such a nice place to connect with friends"

DUNIA - 116 years old



This input is sometimes very personal but can give teachers some important insights they would normally maybe not get from their students.

Another challenge in the game asks students to draw their own 'dream'-classroom. Some of the collected results from this same group:



"There needs to be a seperate, more casual place inside the classroom where students can hang around and learn from each other. This part of the class should have a bookcase, a sofa and flags of all of our native countries on the walls" DUNIA – 116 years old



"Desks should be facing each other. When someone is acting badly, he or she should have to take place in the middle of the classroom (small square in the center)"

HAMZA - 116 years old

Teenagers expressed their views concerning school life.

Other remarks here were that teachers should use the smartboard way more and that the school should have free WIFI for everyone.

After playing these challenges, the students were asked to try to improve them ("Pimp the challenge"). This exercise usually works well, but for this specific target group it turned out to be a little too hard. Instead we went right ahead to the next stage: developing their own game challenges. This also wasn't easy, but

doing this step by step helped a lot and eventually they came up with a whole series of (mostly) perfectly playable challenges! One of the challenges revolved around making the Dutch class more interactive by turning it into a quiz. One of the challenges we actually played was a simple "make a paper plane and toss it in the bin" challenge between teams.

The results from this group's GameLab, together with those of the 13 other groups in this project, were put together to come up with a first working prototype of the 'Trust' game. Today, this game is being tested with new groups of students together with their teachers, and with youth workers. The game is freely available for schools and youth work organisations in Flanders.

CONNEXT@work #WORK

As part of CONNEXT, a co-creating process together with migrants took place in Karlstad to develop a Swedish version of the #WORK game. The co-creation process consisted of a LearningLab, a GameLab and a TestLab.

MARIE ANDERSSON, Municipality of Karlstad

NEW INSIGHTS

CONNEXT partner gameWise came all the way from Flanders to guide us through the process and it was truly a great experience! The Swedish Core trainers did a brilliant job in guiding over 25 migrants in these labs. The atmosphere was great with buzzing energy, vivid conversations and many laughs. With help of the structure of the labs, together with the experience, knowledge and wisdom among the participants, we got a lot of valuable input and ideas to put into the creation process of #WORK $^{\text{\tiny TM}}$ Sweden. In the LearningLab we gained new insights into the theme of the game and in the GameLab and TestLabs we got feedback on how diffe-



rent missions work, the level of difficulty, practical issues, ideas on how to make the missions work better, topics that were missing and topics that were the most valuable.

TEARS IN OUR EYES

We also got feedback showing us that empowerment through game-based learning is indeed possible. Although we were 'only' in a co-creation process, the participants told us stories about the experience that almost put tears in our eyes. Statements like "doing it this way, I am never going to forget what I learned today", "this is the first time that I have spoken to Swedish people that I don't know" and "now I'm no longer afraid to approach people I don't know" really moved us. The missions that the participants appreciated the most were missions involving interactions with "strangers". This made us realise that the $S_-U+G^{\scriptsize @}$ methodology could help migrants in overcoming

Although we were 'only' in a co-creation process, the participants told us stories about the experience that almost put tears in our eyes. thresholds when it comes to interacting with other people. Co-creation is becoming more and more common as many companies and organizations have discovered the benefits of involving their customers, clients and consumers in developing ideas, products and services. We can now see why. Thanks to the feedback from the participants in the Labs, we have been able to make a lot of adjustments and improvements to #WORK $^{\mathrm{m}}$ and are now proud to declare that we are #WORK ™-Swedengood-to-go!

Some QUOTES from the target group that illustrate empowerment:

- "I have never dared to approach a Swedish person on the street to ask something. In this game I had to do this to complete the mission. They were friendly and now I know that it's not so dangerous and I will do it more times." (Older Woman from Somalia)
- "I thought it was good in this game that I learned to trust myself and it motivated me to move forward. Because I met many people that came from other countries that got a job they wanted." (Female, 26 years old from Somalia, SFI-student)
- "I thought the game was good because we talked to many different people. And we had to speak Swedish to get answers to our questions. We got many tips and advice on how to apply for different jobs." (Female, 28 years old from Brazil, SFI-student)
- "In summary I can say that one advantage with the game is that it was fun and that we had an opportunity to overcome psychological blockings to start speaking with unknown people on the street." (Unknown, SFI-student)
- "I have never understood how to do a job interview and I have been very afraid of having to do this, now I had the chance to try and I know I will manage to do this in the future. Happy feelings!" (Female, 18 years old)



Thanks to the feedback from the participants in the Labs, we have been able to make a lot of adjustments and improvements to $\#WORK^{\intercal_{\!\!M}}.$

Designing inclusive games for diverse groups

At best games can be a fabulous tool for inviting, involving and engaging participants in different activities, whether it's learning a new topic, assessing one's own skills or planning one's future. However, if game designers aren't aware of the diversity among players nor of the inequalities in our societies, games can also build barriers to participation and reinforce stereotypes.

TIINA LEHTO-LUNDÉN & MAI SALMENKANGAS, Metropolia University of Applied Sciences

Problematic representations

The representations and constructions of gender and race remain a problematic issue in game design. Critiques focus largely on how gendered and raced characters are represented in video games spaces. Traditionally, the gaming population is deploying hegemonic whiteness and masculinity to overrule non-white and/or non-male

If differences aren't carefully taken into account, they can become real barriers.

users within the space². Research has already shown that if we want to broaden access and participation in gaming, we need to understand better the different groups who are playing³. In this article we wish to explore practical perspectives to how intersectionality can be put into practice in game design. First we present some concrete examples on how inclusive games can be designed particularly from the perspective of language learners, as this is the primary target group of CONNEXT. In the next article we proceed to discussing how games can be used to promote equality. The perspective of gender equality is presented in particular, because one of the aims of CONNEXT has been to develop game contents

Questions on intersectionality in game design

to promote equality between genders.

Kimberlé Crenshaw⁴ introduced a theory on intersectionality, referring to the idea that persisting inequalities, such as categories like gender, race and class, are best understood as overlapping and mutually constitutive rather than isolated and distinct. When designing games we should keep intersectionality carefully in mind and ask ourselves related questions. What are our games for? Why are they played? Whose rules, motives, intentions and set of values do our games reflect? Do they represent everyone? Can everyone succeed in our games?

For adults and girls also

Although games and playing are a very natural part of life in all societies around the world, there also are restrictions related to who can play games, in what contexts and how. For example, in many countries it's common that games are perceived as something children do, whereas they aren't considered suitable to adults. Introducing a language learning game in a group of unprepared adults may provoke a strong negative reaction, if playing is associated with children alone. Perhaps they feel it entirely undermines their dignity as an adult.

It's important to recognize that we have a tendency to assume that groups are more homogeneous and more like us ourselves than what they in reality are.

Another example of limiting perceptions related to games may link with gender. According to statistics, boys are more eager to play games than girls and the gap is the biggest for teenagers from 16 to 18 year olds. The gap is particularly large with respect to online games making use of technology.⁵ This may mean that if we introduce a game played on a mobile device or a computer, some have more experience in and perhaps a more positive attitude towards playing than others.

Designing for diverse groups

In addition to varying attitudes towards games and perceptions on who can play, participants may also have differences in essential playing skills, for example language or technical skills. These skills may have something to do e.g. with age, gender and ethnic background, or nothing at all. When designing and facilitating games, it's important to recognize that we have a tendency to assume that groups are more homogeneous and more like us ourselves than what they in reality are. If differences aren't carefully taken into account, they can become real barriers to reaching the goals set for a game or gaining any benefits from playing. The makeup of the game should be made so that everyone understands what they are doing, why and how to do it. In a diverse group e.g. different support materials and peer support models can be applied to ensure this.

TIPS FROM CONNEXT ON HOW TO CREATE INCLUSIVE GAMES FOR EVERYONE

Familiarising with the group	If you don't know your group in advance, try to find out more about their attitudes, experiences and skills connected with gamification. You can e.g. interview somebody who knows the group better, discuss with the participants or make a little test before starting the actual game. Try to take the diversity of the group into account when designing the game challenges. The most effective way to know the group is to co-create game contents with them.
Answering "why?"	There always has to be an added value in using games as opposed to other methods. Make sure that regardless of the background of the participants everyone knows why you are playing a game. It's good to be open for discussion.
Carefully planned small groups	If the group of participants is very heterogeneous, it's recommendable to plan diverse small groups, where participants can support each other e.g. with language or technology related matters. Ensure that everyone knows they have an important role to play, regardless of their skills. Otherwise there is a risk that the more skilled ones will play the game while others only passively watch this happening.
Support persons	If you are not sure that the small groups have enough skills to carry out the game on their own, try to find support persons for the group, for example peers or students.
Feedback	Collect feedback in a manner that allows everyone to share their view. Remember that giving critical feedback face-to-face may be close to impossible for some people. One of the game challenges can include giving feedback. Be open to discuss the game experience from different perspectives and develop the game challenges for next time.







Migrants were the primary target group of the CONNEXT for inclusion project. In Belgium and Finland games were designed particularly for young people from migrant communities, while in Sweden newcomer adults with a refugee background were targeted. In numerous game sessions organised by by CONNEXT partners practical tips were collected on how to create games as inclusive as possible. In view of language learners from migrant communities, the most essential elements to be taken into account had to do with language and, in some cases, technical skills as well as knowledge about society.

TIPS FROM CONNEXT ON HOW TO CREATE INCLUSIVE GAMES FOR LANGUAGE LEARNERS FROM MIGRANT **COMMUNITIES**

COMPONITIES	
Enough flexible schedule	It's common that games take time. In a group of language learners they usually take even more time. Therefore leave enough time for explaining how to play the game, as instructions may need to be repeated a few times. If you use a digital game platform, you may also need to practise using it together.
Varying instruction options	As in any communication with language learners, when designing or facilitating a game, use plain language and give instructions in stages. If reading is a challenge for the participants, it's good to consider oral or visual instructions. Pictures connected with words may help understanding. Many digital game platforms also enable instructions in small videos: if you cannot explain it, show it!
Suitable answering options	Start with simple game challenges: take a picture, add a word, choose the right one among multiple choice options, make a film or say a sentence and record it. Recording an answer in a game has proven out to be a motivating way to practise pronunciation even for those who are shy to speak in the class. In the beginning it's good to limit the game challenge types and add variation only when the players' skills and trust towards the game method have grown.
Support material	If your group is still at early stages of language learning, you may wish to provide them with some support material to be used while playing. For example, a vocabulary list on the game theme can be practised in advance or added in an envelope given to the group at the beginning of the game session. If some game challenge consists of an interview of a by-passer, the envelope can consist of a model discussion. Thus, the participants can rehearse the discussion in advance: how to start the conversation, how to explain what their aim, etc.
Awareness of potential cultural differences	It's impossible to take all cultural differences into account, as they vary from one individual to another. However, it's useful to try to predict. Does everyone allow their picture to be taken and can a game challenge with a selfie be therefore included? Are the players used to the local weather conditions or do they need some additional instructions on suitable clothing for playing outside? Can one game challenge include a human pyramid, even if the small groups are mixed-gender? If you don't feel secure, it's best to enquire in advance.

CONCLUSION BOX



What have we learned?

- ▶ Game developers must be aware of inequalities and stereotypes in our societies in order not to reinforce them while designing games.
- ▶ It's best to expect more diversity among participants in view of game-related perceptions, experiences and skills than one would assume at first glance.
- ▶ Understanding the diversity of the participants and being able to explain to them in an understandable way why a game-based approach is used as a tool in this context are keys to success.
- There are varying support strategies to choose from if language or technical skills among participants are not very strong, including varying answering options, peer support and support materials.
- Anderson et al. (2017), The gender and race of pixels.
- 2 Gray (2012), Intersecting oppressions and online communities.
- 3 Kafai & Richard & Tynes (2016), Diversifying Barbie and Mortal Kombat.
- 4 Crenshaw (2017), On Intersectionality.
- Van Rooij, Jansz & Schoenmakers (2010), Wat weten we over ... effecten van games.

Using games to promote equality

In CONNEXT a lot of effort was put into incorporating equality and diversity-related thinking into game contents. Playing games and applying gamification can be a very powerful tool to discuss these matters, because of its ability to engage and touch participants personally.

—

MAI SALMENKANGAS, Metropolia University of Applied Sciences

Men taking care of babies

Being aware of inequalities in our societies is essential for game designers in order not to accidentally strengthen them. Instead of reinforcing for example stereotypical gender roles, games can be an arena for challenging them. In fact, gamification can be a powerful tool to promote equality, because it often engages and touches participants personally.

CONNEXT explored particularly the theme of promoting equality through gamification while developing contents for a gender game. Acceptable behaviour for a girl, men taking care of babies, diverse career options for women and gender minorities as part of our societies were among the game contents discussed. Preparing attrac-

Games can be an arena for challenging stereotypical gender roles.

tive game challenges isn't all that complicated, but incorporating them into a meaningful game experience, which truly promotes equality, is more challenging.

Defining aims

The very first step in game design is to define aims of the game. When discussing gender equality, the aims of an individual game can be defined for example in the following manner.

At the end of the game, each participant should

- become more aware of their own perception on gender roles,
- ▶ made personal observations about gender in their personal surroundings,
- ▶ have more knowledge about the impact of gender in society in the past or today and/or
- ▶ have an increased interest towards genderrelated matters.

The aims of the game can also be defined on a group level. Perhaps the aim is that there is more trust between the participants to share their personal experiences or that they have a common understanding related with gender issues and terminology used.



Gender is very personal, but simultaneously it is a very political matter, which has to do with human rights and equality.

Varying strategies

In order to reach these aims, CONNEXT has identified the following elements that can be used to discuss gender equality in a gamified way:

- ► Eye-opening facts. Even if somebody wasn't interested in listening to a lecture on equality, they may be touched, if presented via a game quiz, how many persons belonging to a gender minority are suicidal due to discrimination they face daily or how only a small percentage of executive committee members of large corporations are female.
- ▶ Identifiable stories. The game session can be built around a character that the participants can relate to. By carrying out game challenges participants get acquainted with the reallife challenges that for example a father or a young girl from a migrant community trying to disregard traditional gender norms face. Also personal stories from video clips can be used.
- ▶ Incentive to observe and reflect. We have a tendency to close our eyes to our everyday environments, for example gendered division of labour. Therefore it may be useful to ask participants for example to observe how many cashiers, bus drivers or parents pushing

prams are of one gender and to discuss why this might be.

Taking time for discussion

CONNEXT also recognises some challenges in processing gender equality in a gamified way. To start with, gender is a very personal matter, which links with our values and identity in a complex and sensitive manner. Simultaneously it is a very political matter, which has to do with human rights and equality. While everyone has the right to formulate their own perception on gender, it's also important that everyone is aware of their rights and the potential new roles in view of gender they are entitled to. It's important to reserve enough time to discuss gender through gamification and still not to expect huge changes in thinking or in behaviour of an individual.

Discussing gender in a diverse group may be particularly challenging. A game shouldn't serve as a battleground for diverse perceptions. Therefore the game challenges should be designed and facilitated in a manner that everyone feels respected and safe despite personal, generational

or cultural differences. Language skills may bring an additional challenge to the picture, if not everyone masters the language used. If there are concerns related to language skills, designing simple game challenges with informative contents may be a good way to get started, and the more complex reflection challenges can be reserved for later use.

Discussing gender
in a diverse group may be
particularly challenging.
Therefore the game challenges
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in such a manner that everyone
feels respected and safe.

Taking time for fun

The same reasons which make gender-related themes challenging also make them ideal for gamification. As gender is often considered a very serious topic, even a taboo, discussing it while playing makes it lighter and more fun. Gamification allows taking different roles and practising different points of view. The potentially opposing views can be also used intentionally to promote constructive discussion. For example the following game challenge can be used: "Decide as a group, if you wish to oppose or defend this statement: Gender equality has already been reached in our society. List as many arguments as you can to support your view. The more different arguments you find, the more points your group gets. In the end, let's discuss."

Before designing game contents related to gender equality, it's good to consider the following questions:

Cender sensitive choices? The very first step for the game designer and facilitator is to become aware of their own potentially normative thinking. Depending on the game contents, gender sensitive game choices may refer for example to the narrative. If the game consists of a character, does it behave according to gender stereotypes or challenge them? It's also good to be aware of how in-game partners are chosen. Instead of male technicians and female social workers we could perhaps choose to interview persons with less stereotypical career choices.



Gender is often considered a very serious topic, but discussing it while playing makes it lighter and more fun.

There can also be a conscious choice to use gender-neutral language (e.g. in Swedish "hen" or in English "they"). No one solution suits all situations, but it is good to be aware of choices made.

- Mainstreamed or not? There may be some contexts where an entire game with a focus on gender equality can be played. If this is not the case, mainstreaming gender perspective may be the only and perhaps even a more effective way, because it then reaches more players. Mainstreaming means that all games are designed in a gender-sensitive manner and consist of small elements provoking gender-related thinking.
- Preventing backflash? As gender equality is a complex topic, it's of the utmost importance that enough support and supervision for constructive and respectful communication is provided, otherwise we face the risk of strengthening stereotypical thinking and conflicts instead of dissolving them. In practice this means that it may be recommendable to agree on the rules for communication together with the players before the game. Sufficient time should also be reserved to discuss the answers, thoughts and feelings provoked by the game afterwards.



In an ideal situation all stakeholders are involved in the co-creation process of a game, also the players.

TAKE PARTICIPANTS BACK TO THE PAST!

Sometimes reverse thinking may be most efficient when discussing complex phenomena. For example Metropolia University of Applied Sciences students created a game called Back to the past. It started in a future nearly destroyed by climate change and the task of the players was to return to the past, our times, to carry out game challenges in order to prevent the disaster from happening.

The same idea can be applied to discussing gender equality. In the story of the game, players are invited into a future that is devastatingly unequal. They are then asked to return to the past, our times, to carry out game challenges and thus to help to fix the situation.

CONCLUSION BOX



What have we learned?

- ▶ Games can promote equality, when e.g. eye-opening facts, identifiable stories and incentives to reflect matters related to equality are included in game chal-
- ▶ Equality-related game contents may provoke heated discussions. If this should occur, it's of the utmost importance that everyone feels respected.
- ▶ In addition to creating game contents specifically promoting equality, any games can and should be developed taking into account equality concerns. For example gender-sensitive choices related to narratives, terminology and in-game partners are possible in all games.

CONNEXT@work Equality on equal terms

With a game on gender we want to raise awareness among migrants and newcomers of genderrelated challenges in Swedish society and in the labour market. This gives them a better chance to integrate and understand our policies and programmes, as well as their rights and obligations.

SALEH MOHAMMADI, Municipality of Karlstad

Gender is a social construction

"Gender refers to the social attributes and opportunities associated with being male and female... These attributes, opportunities and relationships are socially constructed and are learned through socialization processes. They are context-, time-specific and changeable. Gender determines what is expected, allowed and valued in a woman or a man in a given context."

We want this game to play an important role in informing the target group about the benefits of

gender equality and raising discussions on the consequences of gender inequality. One of the missions in the game is about nontraditional career choices we make depending on our gender.

The game also contributes to a change of attitude towards genderstereotyped professions. It shows that values and norms influence our daily lives and make us support existing structures in society. The game helps to understand gender roles and expectations and gives us the chance to be aware of them and become more equal.

We want this game to play an important role in informing the target group about the benefits of gender equality and raising discussions on the consequences of gender inequality.

The making of

Due to COVID-19 we had to do all co-creation online with professionals from our transnational partners. But it worked very well. Each partner has been working with different topics and themes and we have used a padlet to summarize and visualize all our work.

For the development of the game we used the model Game.Learn.Grow.Create. The first step was to define the goals we wanted to work on and the learning goals for the group. We also defined the behaviour we wanted to see on an individual level.

In the next step we had to take into account different contexts and possible thresholds, such as language skills, knowledge and interpretation of gender rights, the diversity of groups, etc... We also reflected on our role as professionals and on our intercultural attitudes.

Before we started to create missions we looked at the theoretical model of game-based learning and took into account different challenges like having a fun factor and working on group dynamics, on individual learning styles, on competences and on game types.

Creating game challenges

With all this information we were ready to create the game challenges. During this part of the co-creation process we were divided into three national groups, all online in break-out rooms. In Sweden the missions were more related to the labour market and adjusted to migrants as a target group. For example: "Go into town, observe the bus drivers, answer who is driving the buses and registrate." In Finland challenges were more focussed on observing gender exposure in society. For example: "Walk to the other end of the Esplanade. Look for as many statues as possible (at least 4) and take photos of them. Discuss how male and female characters are portrayed differently." In Flanders the target group were youngsters and the missions were more focussed on raising awareness about gender stereotypes: "Go to a shop (toystore, perfume shop,...) and ask yourself and the salesperson about the differences between men and women or boys and girls."

How Now Wow

The next step in the creation process was the methodology How Now Wow. We examined every mission, discussed what could make the mission even better and tried to transform all the how's into wow's!² Due to Covid the work was done with professionals, but in Sweden we are planning a

testlab with the target group in order to adapt and adjust the challenges and increase their relevance.

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This part of the template stays empty as no organisation has much use for unoriginal ideas that are challenging to achieve.

However, you can use this space to park ideas that after consideration you feel are impossible to implement. It serves as a record they were considered.

Now

Low risk and highly acceptable ideas. They are sometimes referred to as low-hanging fruit.

ACTION

implement to fill gaps in existing organisational processes for incremental benefits.

How?

These are breakthrough ideas that are impossible to implement without current organisational constraints, eg budget, skill level, technology.

explore possibilities, but place them on hold until implementation is more feasible.

Wow

Innovative breakthrough ideas that can be implemented relatively easily. They have enormous potential for big benefits.

ACTION

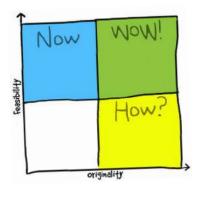
develop a plan to implement these ideas.

How Now Wow template

The dimensions used for a How Now Wow matrix template are:

- originality: the horizontal axis rates ideas as normal or innovative
- ease of implementation: the vertical axis rates ideas as easy or difficult to implement

Our transnational online meetings were documented on a padlet.



- UN Women (sd). Concepts and definitions.
- COCD (sd), Modellen en technieken.



Games as encounters

It is often thought that digital tools keep people apart from each other. What if instead they were harnessed as tools for positive encounters, sharing and learning from diversity? Another approach applied by CONNEXT to promote equality was to arrange mutual game sessions between language learners from migrant communities and native local language speakers.

TIINA LEHTO-LUNDÉN, Metropolia University of Applied Sciences

Social inclusion and multicultural integration

Arranging encounters between diverse groups as part of game sessions get support from literature. Previous research has widely claimed that games may foster social inclusion as well as multicultural integration. Amanda Paz Alencar and Teresa de la Hera Conde-Pumpido found that the capacity of collaborative games to promote positive interdependence was linked with common goals established for all players in the game and the inclusion of a "group life" system. They have also discussed how players of collaborative games can use their unique skills to contribute to the solutions of challenges in a game as well as arouse individual responsibility. For these reasons we in CONNEXT also believe that playing in groups that bring different players together is the most effective and beneficial for all.

Game sessions allowing encounters make similarities between people more visible.

The main value of collaborative digital games as a tool to foster intercultural interaction, does not only lie in their capacity to promote the benefits associated with cooperative learning practices, but also in their potential to overcome the barriers associated with these practices when implemented in multicultural settings. CONNEXT also strongly believes that games are the ideal means to teach the benefits of inclusivity and contribute to lasting change in behaviour.

Game sessions allowing encounters are important in many ways. According to the experiences of CONNEXT, game sessions are a very beneficial and inspiring way to allow encounters and sharing. First of all, they are crucial for the creation of reciprocal relationships between diverse groups. Social work professor Maritta Törrönen, who has researched reciprocal relationships for several years, says that reciprocity is community-based and when we are listening to different people we can build our community.2 This means that we need to create spaces where people can come together and understand each other's differences and familiarize themselves with diversity. Secondly, game sessions allowing encounters not only focus on diversity but also make visible the similarities between people.

The game session created beneficial moments where thoughts were shared between students with different backgrounds.



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When two diverse student groups meet

CONNEXT organised mutual game sessions, for example between student groups from Helsinki Vocational Institution (Stadin ammatti- ja aikuisopisto) and from Metropolia University of Applied Sciences. Here an encounter refers to a situation where language learners from migrant groups and native language speakers get to know each other and learn together while playing a game. In other words, the encounter was a community event that produced new experiences and new knowledge for those who participated in it.

These two student groups had very different backgrounds and therefore also different learning objectives. The main objectives for Helsinki Vocational Institute students was to practise the Finnish language as well as to familiarize themselves with students and studies at the University of Applied Sciences. The main objectives for Metropolia social service students was to practise plain language and guidance skills as well as to get to know students from a vocational institution, a

potential client group in their future career. In order to reach these diverse objectives, the groups were carefully mixed.

The game challenges students carried out were fairly simple and always involved a personal element. Some examples:

- ▶ Go up to 2 students on the campus. Do an interview. Ask them: 1. What are they studying? 2. Why have they chosen those studies? 3. How do they feel about studying in Metropolia?
- Discuss in your group what kind of future and career plans you each have. Where would you like to work or study? What interests you with respect to the future?
- Social services students tell the others about their studies and give examples of places where Bachelors of Social Services work.

The game session created beneficial moments where thoughts were shared between students with different backgrounds. The diversity of response options to the game challenges also made sure that everyone could participate in solving the tasks.

CONCLUSION BOX



What have we learned?

- ▶ Games can be used as an activity that provides people with different backgrounds with common goals and a possibility to learn from diversity.
- When using games as encounters, it may be necessary to define different objectives for different groups.
- Paz Alencar & de la Hera Conde-Pumpido (2017); Memarzia & Star (2011); Kayalis et al. (2011).
- Törrönen (2016), Vastavuoroisuuden yhteisöllinen luonne.

Serious games in times of COVID-19

In CONNEXT, we've learned that games are at their best when people come together physically. This increases collaboration and flocks intelligence. So in 2020 the emergence of COVID-19 questioned a very valuable element in games: playing, sharing, having fun and learning face-to-face with others in a group. Physical forms of reunion had to be kept to a minimum, which forced us to reconsider the possibilities of gamification and explore game ideas that can be carried out independently.

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MAI SALMENKANGAS, Metropolia University of Applied Sciences

Lockdown games

As a result, CONNEXT launched some games for the times of isolation. All of them can be carried out independently and their aim is to give ideas on how to to strengthen personal well-being while staying at home most of time. An examples is the game *Keep well #isolation*, created by the Metropolia University of Applied Sciences. Another game, *Ukko ylijumalan luontopeli* (Nature Game of Supreme God Ukko), created by Helsinki Vocational College (Stadin ammatti- ja aikuisopisto), gave inspiration to start exploring outdoors. Also the Lockdown Minds™ game created by gameWise was opened to individual players.

Some examples of game challenges from isolation games:

- What do you see when you watch out of your window? Write down 5 words that the view reminds you of. Make a short poem, where you use these words in a random order.
- ▶ In the times of COVID-19 washing hands is essential. What else can you do for others from a distance? Send a short, encouraging message to your friend or a relative.
- ▶ I am Supreme God Ukko. I want you to build a high tower to honour me! Go into nature, look for stones of different sizes, try to balance them on top of each other and send me a picture of your highest tower.

CONNEXT Diamonds

Another adjustment during the times of COVID-19 was to organise games as part of virtual meetings and seminars. For example, CONNEXT Diamonds game was played by up to 70 participants from different countries simultaneously, all participants individually on their own mobile device. The aim of the CONNEXT Diamonds was to introduce the project and the diverse ways in which gamification had been used in CONNEXT.



— Here are some examples of CONNEXT Diamonds game challenges:

- One of the aims of CONNEXT is to support migrants to get closer to the labour market. CONNEXT Sweden has helped individuals to do so for example by developing #Work Sweden game, which increases knowledge about the labour market and encourages users to bravely look for a job. Watch this film on hard and soft skills and then choose 3 of the strongest soft skills you feel you have below.
- Metropolia's nursing students developed a game that introduces health and well-being services in secondary schools. Imagine that your friend Mohammed is depressed and is hesitant to ask for help because he thinks it would show he is weak. Explain to Mohamed why it would be good for him to use the services of a school psychologist. Record your explanation.
- Vocational institution Omnia has developed several games to support language learning. Match the correct words below with the equivalent English words.

In the online seminar participants carried out game challenges on their own. After the game session, the experiences were discussed in an online small group with other seminar participants. CONNEXT Diamonds was a collaboration between the Finnish partner organisations of CONNEXT with challenges from Sweden and Belgium. The game was played on seppo.io.

The game challenge can be designed in such a way that it's necessary to visit the in-game partner on another web conferencing platform in order to carry out the challenge.

Enabling virtual encounters

Encounters are a very important part of CONNEXT games. Sharing ideas and peer support makes games easier and often more fun to play. However, scheduled interviews and talking to by-passers on the street as part of game challenges often allow participants to explore new perspectives in a way they otherwise wouldn't do perhaps and

therefore give a sense of achievement. Therefore CONNEXT developed different approaches to enable encounters and sharing as well.

Ideas enabling interaction and shared experiences during virtual games:

- ▶ Virtual small groups for participants. Some web conferencing platforms allow participants to be divided into small groups, where they can discuss with each other while playing or even decide to nominate one representative, who carries out the tasks on behalf of the group, based on joint discussions.
- Virtual platforms for in-game partners. When visiting in-game partners face to face isn't possible, they can be invited to join virtually. The game challenge can be designed in such a way that it's necessary to visit the in-game partner on another web conferencing platform in order to carry out the challenge. For example, in the CONNEXT Diamonds game this was carried out in the following game challenge: "Look around you right now and think what elements in your surroundings are connected with certain genders, perhaps in a stereotypical way. Be prepared to take one photo as an example. Before you do so, we invite you to discuss your observations with CONNEXT collaboration partner from Girls' House by opening this web conferencing link. After the discussion, please download your picture and explain in a few sentences why you chose this picture."
- Platforms. In some game challenges observing one's environment is essential. If players participate virtually from different places, it's possible to make use of some street view programmes or continuously streamed videos as part of a game challenge. In other cases it may be meaningful to organise a virtual platform, where participants contribute together to a project e.g. by brainstorming, drawing, commenting on each other's opinions or adding pictures.



CONCLUSION BOX

What have we learned?

Encounters are an essential part of serious urban games. Even at times when games have to be played from a distance, it's recommendable to design some elements of sharing and interaction.

CONNEXT@work Lockdown Minds™

A side effect of the COVID-19 crisis that can't be underestimated is the negative impact on the mental wellbeing of youngsters. Even those who normally feel good about themselves or have a stable environment, can be destabilized by measures that have been put into place. Youngsters in precarious situations face even more hardship as such.

BRAM ALLEGAERT & LENNERT MOTTAR, gameWise

Mental health in difficult times

Serious Urban Games create a physical and digital interaction between youths and the services of the city or municipality in which they live. The current crisis motivated us to provide an urgent

contribution to the online youth work programmes being offered to youngsters. For this reason, we developed the

Topics like sexting, social fears, loneliness, performance anxiety and identity crisis are being explored. serious online game Lockdown Minds™, tailored to young people in isolation and trying to create the same urban vibe as the original group dynamic city game. While playing this game youngsters learn how to remain in balance during these

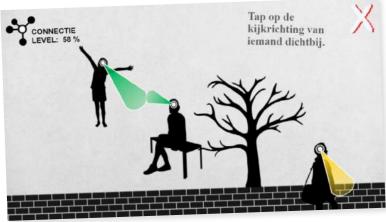
psychologically demanding times. They experience what purpose they can serve for others and are guided towards existing social services.

Players start the game in a student dormitory in lockdown. As newcomers they want to know their fellow students better. By listening to them and helping them with small problems, they gradually reinforce the mental wellbeing of the other characters. Topics like sexting, social fears, loneliness, performance anxiety and identity crisis are being explored.









Co-creation journeys

More than 1700 youngsters have already played the game and 500 have given their feedback. With our partner organisations we are currently organising different co-creation journeys with youngsters. Together we work on a full remake of the game to suit their needs even better and to interconnect with their community. Moreover, the minigames from the game are being offered separately as a starter for a conversation between youngsters and a mentor.

With this profound update of the game, we are aiming higher and further, we want to reach more youngsters and provide them with the tools to find emotional and mental stability during this difficult period. The game lowers the threshold to talk about their mental state but can also guide them to the appropriate social services. Empowering youths on a social and mental level is what we are fully committed to!

GAME DATA SHEET

- Goal of the game: youngsters learn how they can better maintain their mental balance. They experience how they can strengthen themselves and others and are guided towards existing (online) help-organisations.
- **How**: players interact with their virtual housemates and help them become more resilient. By helping the game characters, they also reflect on how they can help themselves and others in the real world.
- Development method: online co-creation with youngsters and teachers throughout Flanders and with experts. Real life co-creation labs with youngsters and youth workers from different organisations in Flanders: Cachet vzw, Arktos vzw, vzw aPart, Groep INTRO.

What we learned ... in a game

Due to COVID-19 we were challenged to have our last meeting with partners from CONNEXT online. In September 2020 we took this possibility to harvest our learning by active reviewing using online tools. We created an 'online escape room' connected to our four topics: diversity, empowerment, game-based learning and co-creation. Each national team had to solve a mission before they could go to the next step. With these challenges we wanted to connect action and reflection. By looking back at the experiences during the project and sharing experiences we wanted to collect the outcomes of our project.

Game based learning

Challenge

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Imagine that game-based learning would be a recipe of one of your favourite dishes. What would you select as a professional and why?



© Lovesee

LearningLimonCello

Take 5 lemons, but watch out for exclusion. You can use other citrus fruits as well. Make sure you have the right atmosphere and use osmosis between the digital world and the real world. Make time to reflect on this: how can you extract the best qualities of your fruits (youngsters)? Make a syrup of sugar (a fun experience) and water (reflection). Take your time to create a connection between all the ingredients. Then mix to end with the best result: a drink that is in perfect balance with youngsters, teachers, youth workers and society. Watch out: limited preservation time, you will need to remake a batch in time!

Diversty

Challenge

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Formulate 10 words starting with a different letter that tell us something more about diversity in relation to game-based learning.

- A | Attitude | We have many ways of taking a stand to new things.
- B | Beauty | Beauty of being a human.
- D | Diversed way of answering | Understanding the diversity of every person.
- F | Fun | Learning and life in general are more fun when everyone can be him/herself and when their full potential is taken into account.
- J | Join | Players have the possibility to be seen and heard when they join a group.
- N | Needs assessment | The needs assessment needs to be made in advance in order to play the game in a diverse group in a meaningful way.
- O | Open mind | Always keep an open mind while playing (as player as well as game master).
- Q | Questions | You need to have a diversity of questions in a game. Make them open, or keep them closed, or spin them around.
- U | Understanding | Understanding different starting points (language levels, technical skills, attitude towards games etc.) is important.
- W | Why | You always have to explain why you play a game so that people with different backgrounds understand and become motivated.

Empowerment

Challenge

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Create a poem or a song or a rap of at least 15 sentences in which one part is about the empowerment of the target group. Another part tackles the question 'how to make changes to your organisation so as to enable more gamified learning?'.

Co-creation

Challenge

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Bring up your drawing talent! Each member of the group will create one image of a crazy comic.

After every participant has drawn his/her image you will put them together in one crazy comic story.

M-power

Pick up the micro
rewards & badges, a fun experience
get challenged, play games that are
context-related, that speak to
the target group

Pick up the meso let's facilitate, educate, empower reflect in group, digitalize be open-minded break out of your reference frame!

Pick up the macro
the game is rigged
There are no real chances
f*** the government policy:
make place for a real game changer



CONFIDENTIALITY IS OUR COMMON CONCERN

When using digital game platforms, we should be aware of concerns related to confidentiality. "What goes on the Internet, stays on the Internet", they say, and this has made many people very careful. Even if we were sure that our own platforms are secure, we wouldn't know if some participants remained distrustful towards everything digital or had an issue with confidentiality for personal reasons. They may be in a vulnerable life situation and therefore e.g. wouldn't want to be photographed at all.

To make sure that everyone feels safe and trusts the game developers, CONNEXT has the following recommendations in view of confidentiality:

- 1. **Properly informed participants.** Before the game, explain to the participants how their written answers, pictures and films will be stored and who has access to them. You can clarify that the answers they produce will only be used in this game session and won't be shown to any outsiders.
- 2. **Respect for privacy.** If you sense that confidentiality raises concerns in the group, you can together agree that nobody writes down answers, takes pictures or shoots filmsthat would allow an individual to be identified. This may be a safe choice if the group is large or people don't know each other.
- 3. **Signed permissions.** Sometimes answers participants produce are so beautiful, touching, fun and colourful that it would be wonderful to share them after the game session with colleagues or the public in general. If you wish to do so, you should ask for a written permission from the participants before the game.

According to CONNEXT experiences it is best that the game facilitator takes the initiative to discuss confidentiality with the participants before any concerns arise. It is an opportunity to show that games are carried out in a responsible, respectful and open manner.

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