QooL CITY

ID·GAMING Quality of Life Game

METHODOLOGICAL GUIDELINES

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ID

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ACKNOWLEDGMENTS

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 The other deliverables of the ID GAMING project can be found on the project webpage https://id-gaming-project.eu/

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INTRODUTION

This document presents methodological guidelines for playing **QooL CITY** ID-GAMING Quality of Life game, either the board game or the digital game versions, with training purposes.

Information's regarding players profile, game objectives, material available and delivering methodology are presented to support the use of this game with training purposes and to achieve the proposed outcomes of ID-GAMING project.

QooL CITY has been developed to increase the competences (attitudes, knowledge, skills) of persons with intellectual difficulties, professionals and relatives in the implementation of ICT serious games.

The main purpose of this serious game is to facilitate persons with intellectual difficulties quality of life improvement through training both cognitive functions (CF) as quality-of-life (QoL) domains of everyday life challenges while playing this game.

To assure that this project results in a *willingness to use* the product developed, partners progressed through a co-creation process, assured accessibility, guaranteed the existence of competencies to be able to use it, and talked about any possible motivation issues.

Having a co-design procedure method to design the game structure, storytelling, and elements and identify the more adequate and useful cognitive functions the target group wishes to train for improving their quality-of-life, led to enhancing players' perception of the game.

Co-design process was accompanied by clear efforts to assure accessibility to the game written contents by implementing Easy to Read texts for all materials of support. The boardgame is made quite accessible to users having elements ready to download online to be printed and also the physical version of the game can be made available under request to any partner in its countries.

Adequate support, according to each specific players' needs, is guaranteed since is advised to assure support is available whenever needed during the game implementation. Playing in heterogeneous peer groups also provides support

during the game. This way the competencies to use the product is also insured leading to a higher level of motivation to play it.

So, **QooL CITY** as one of the products of the ID-GAMING project, has reinforced clearly its chances of getting the desired result and the expected benefits.

Co-design and accessibility procedures were developed to provide sustainability to ID-GAMING Quality of Life game. It also led to multiplying the impact of the project impact in several aspects:

- The short-term impact on the beneficiaries of the program who took part in the game design activities;

- The long-term impact that the IDGAMING Quality of life game will have as an innovative technological product for the people with intellectual difficulties;

- The general impact of serious games use and availability have in the community.

DESIGNATION

QooL CITY - ID-GAMING Quality of Life Game

PLAYERS

Players will have the next profiles:

- Young adults and adults with intellectual and development difficulties;

- Relatives of persons with intellectual and development difficulties;

- Professionals.

Players propose to play QooL CITY due to their interest in the implementation of ICT serious games for improving young adults and adults with intellectual difficulties cognitive functions and therefore quality of life.

QooL CITY can be played having 2 to 6 single players or teams of players per game so elements/resources can be assigned and organized efficiently and therefore the game can reach the objectives.

OBJECTIVES AND IMPACT

QooL CITY objectives are:

- To increase persons with intellectual difficulties and their supports competences (attitudes, knowledge, skills) in the implementation of ICT serious games;

- To improve persons with intellectual difficulties cognitive functions, and therefore the quality of life.

Specific Objectives are:

- To increase the awareness of this target group regarding the relevance of ICT serious games;

- To develop and improve Digital Skills of persons with intellectual difficulties;

- To increase the socialization of persons with intellectual difficulties through the collaborative gaming and involvement of the Relatives in the use of ICT Serious Games out of the care centres.

QooL CITY expected impact on players is:

- For young adults and adults with Intellectual Difficulties will improve their cognitive function, increase their quality of life, including socialization and will also acquiring digital skills.

- For relatives and professionals will be provided with better understanding of issues relating to the application of ICT serious games for persons with intellectual disability and guidelines for properly supporting them.

PRESENTATION

QooL CITY is a collaborative serious game, where players are engaged in a joint-play activity to have fun and achieve the training objectives together.

QooL CITY has a narrative or storytelling that is adapted to the intellectual disability sector and to young adults and adults with intellectual difficulties life settings and expectations.

Its design includes different kinds of activities which players are challenged to play in offline and digital mode:

• Activities for training quality of life dimensions, by increasing opportunities to refer, use, transmit and apply their own knowledge, skills and attitudes while solving face to face challenges in the 8 quality of life dimensions according to Schalock's quality of life model (1996)[1];

• Activities for training cognitive functions by increasing opportunities to refer, use, transmit and apply their own language, memory, solve problems, attention to detail, social emotional knowledge, skills and attitudes while solving face to face challenges that imply the use of those cognitive functions;

• Activities for training cognitive functions by increasing opportunities to refer, use, transmit and apply their own language, memory, solve problems, attention to detail, social emotional knowledge, skills and attitudes while playing ICT serious games that train the use of those cognitive functions.

QooL CITY includes a board designed as a city path with different squares and cards explaining the meaning and what to do in some specific square. By falling into a square players will perform an activity called in the game "*challenge*", depending on the information and instructions given in the card that is also related with the city area.

Three types of squares and cards were developed:

1. Squares and challenges of Quality of Life (QoL);

2. Squares and challenges of Cognitive Functions (CF);

3. Squares of special cards.

QooL CITY combines playful and pedagogical intentions, like teaching problem solving, critical thinking, teamwork, and other social skills, providing sense of purpose, motivation to succeed and preparing for real-life collaborative work. Also, different challenges have been designed around collective decision making, enabling players to enhance the development of interpersonal competencies such as negotiation, collaborative decision making, and creative problem resolution.

1- Reference Schalock, R.L. (1996). Reconsidering the conceptualization and measurement of quality of life. In Robert L. Schalock (ed.)Quality y of life, vol. 1. Conceptualization and measurement. American Association on Mental Retardation.

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GAME DESIGN METHODOLOGY

Co-Creation Process

QooL CITY design was co-created with persons with intellectual difficulties and professionals.

Several working co-creation sessions were organized where, through the application of participatory design methodologies, contributions to the specification and development of the quality-of-life game design were collected. Data findings covered mainly these areas:

- Identification of challenges related to the quality-of-life dimensions to be tackled in the quality-of-life challenges cards, better reflecting the daily life routines and/or interests of young adults and adults with intellectual difficulties;

- Selection of ICT serious games to be referred in the cognitive functions challenges cards among a series of existing ICT serious games, according to their accessibility, motivation to be played, among others.

- Development of the game narrative or storytelling of QooL CITY.

- Determination of the rules of QooL CITY.

- Physical elements design like the board, pawns and dice use, cards such as the house card; challenge cards; reward mini-cards and special cards.

Game Design Key Points Report

A Key Point Report was produced from data collected on co-creation sessions. This report presented the most referred options target group suggested upon the following game design topics:

1. Who are the players, where are the players (fiction)

2. What can they do (actions/verbs)

3. Their main goal (their journey)

4. What challenges players face

5. Rules and mechanics

    f. Start and end of the game

    g. Player interaction

    h. Rewards and penalties

    i. Modes of interaction for QoL challenges (pool of ideas for QoL Challenges)

6. Progression (what changes over time)

7. Why do players keep playing

8. Session's time structure

Key points data report informed ID-GAMING's partnership on how to implement game design solutions while conducting/assembling the game narrative and elements design.

Globally, findings informed us on what to look and what to avoid for QooL CITY. They are as following:

Regarding game structure

Look for simplicity, avoid complexity in rules and structure of the game; have easy challenges; easy strategy are appreciated; game having low/no necessity of literary skills to be played; board games and card games are appreciated, with possibility of some movement and bodily expression during the game; have funny and dynamic characteristics; provide possibilities to tackle progress and reward different types of intelligence in a group; play in teams with collaborative objectives; interaction between players is important, and players should not be eliminated and play all until the end.

Avoid complex rule that are difficult to understand, avoid games that take too long (e.g. games that takes at least 2 hrs to complete); avoid small or unstable

board, dices and pieces; avoid changing directions in a game (as happens in UNO); avoid hard questions in quizzes (like Trivial Pursuit); avoid having to associate images with concept; avoid complex strategies, too much information to keep in mind (card games); avoid games that create too much tension; avoid complex skills needed.

Regarding to Rules Characteristics

Look for simple rules, interaction with others, players should not be eliminated during the game and should play until the end, have collaborative objectives, play in teams and not eliminating others; a game that involves strategy, but also luck in some parts

Regarding to Game Elements

Include in the game a board that has a fixed basic structure. The game can also include, the possibility to have some pieces of the board to assemble. Use a house card per player/team. Have quality of life and cognitive functions challenges cards and special cards aimed at making the game more dynamic. In addition to the challenge, cards should include rewards (same images on the mini reward card to be used in the house card). Have also information on QoL dimensions and Cognitive Functions that are being trained. Challenges should be achievable. They should not require a long time to be done, so not to slow the game. They should include the reward to offer more motivation. We should propose the greatest number possible of different challenges so that the game is varied and with new actions. We must not forget that they should be funny challenges, since the end goal of the game is also always to have a good time. Card's structure should consider front and back information. Have one classic dice and coloured base pawns, with simple design to be easily recognized.

Co-design ID-GAMING Game Workshop

Having analysed co-created game design key points resutls, partners held an online co-design game workshop to produce (1) Decision on core game design (who are the players; what can they do; the main goal and what challenges players face); (2) Decision on core ruleset; (3) Discuss on other aspects: interaction with the game, what challenges will the game feature and how they relate with quality

of life and (4) get a first pool of ideas for quality of life challenges.

Online collaborative work tools were used such as http://miro.com/ or https://jamboard.google.com/; Zoom + Breakout rooms; https://ideaboardz.com/ and Mentimeter.

At this point Co-design ID-GAMING game online workshop ideas were gathered to create QooL CITY game design draft containing a Baseline and an Add-On's game versions. Board, pawns and cards (house, challenges, special cards) structural proposals were created and different   quality of life dimensions and cognitive functions challenges and contents to challenges cards were gathered among all partners.

Face to face game experience among partners were made and upon having experienced the game design some more improvement proposals were collected and incorporated to produce an ID-GAMING quality of life game v.3.0. This version was revised by 47 persons with intellectual difficulties, 16 professionals and 6 other stakeholders from all partners countries.

Validation Pilot Actions

QooL CITY - ID-GAMING quality of life game v 4.0 quality and results were assessed by 100 users in all partners countries according to the validation methodology, has provided feedback which was evaluated and further improvements done. During ID-GAMING implementation lifetime version 5.0 is the final ID-GAMING Quality of Life game final version.

ELEMENTS

QooL CITY - ID-GAMING Quality of Life training game has the following elements:

RULE BOOK

The rule book is available to provide all instructions for game setup, object of the game, game play, QoL and CF scoring dots collect and the end game.

BOARD

QooL CITY board is a modular square board with white background, big enough

- A2 size -, visually attractive, colourful and accessible. It includes pictures or drawings suitable for young adults and adults, with a clear design. It has a fixed structure with the possibility to have add ons for advance game version.

On the middle the white space has printed the deck space for the special cards and rewards cards. Pictograms are oriented all towards the inside of the board or all towards the outside of the board to facilitate players spatial orientation.

It's advisable to have good quality photos from the existing local buildings in the different areas of a city presented on **QooL CITY** board – education, public services, leisure and commercial areas – and use them as in the following picture. This will contribute to improve game contextualization and meaningfulness.

The path is designed as a street with several squares and in it can be found:

Colored squares connected to a specific area of the city

Having same number of squares of each color, areas will be:

- Public Services – Blue
- Lifelong Education – Green
- Leisure Time – Purple
- Commercial Area – Orange

Challenge squares connected to a specific area of the city

Being the places on the city, such as: shops; pharmacy; supermarket (commercial area); Gym; cinema; swimming pool (leisure time); library, office, school (lifelong education) and police station, bank and train station (public services), where challenges are proposed after drawing a challenge card. Two challenges must be succeeded in each area.

Special squares printed on the board

When a player land on these boxes (special cards; special power cards), it's needed to draw a card that has two sides. On the back they have a star or a hand, on the front the instructions written and player must follow those instructions.

Start box

Start box with different color and with an arrow to indicate the direction to go.

QooL CITY provides also 4 add ons boards to be set up in the baseline configuration board and turn to Advanced variant. This will provide with some additional features to the game and create a more complex path and possible game interactions as explained in the Rulebook.

PAWNS

Qool CITY pawns are big enough, 3D and colourful, to be clearly seen on the board and easily handled. They are assembled using 6 office binder clip of different colours and should be printed on both sides in a thick paper.

Players choose among the 18 high-quality photos (size:3,5*5cm) examples of people with different characteristics (gender, age, disability, culture, bodies shapes) and build up the preferred 6 pawns for the game to be played.

Further high-quality photos can be added by players and their ones can also be used.

Before starting the game each player/team picks the chosen character and fit in the office binder support to have each player/team pawn completed and ready to play the game.

DICE

One dice needs to be provided. Players roll it and advance as many squares as dots.

HOUSE CARD

House cards are big enough, colourful and visible. It has 8 boxes where they must put the objects gathered (Bingo Concept, they have to fill all these boxes in the house).

Boxes are empty and they have colored borders, 2 are blue, 2 are green, 2 are violet and 2 are orange. These colors correspond to the 4 board areas colors [Public Services; Lifelong Education; Leisure Time; Commercial Area].

To gather these objects, they need to visit 4 different areas of the city and inside it they face two challenges. If the challenge is completed successfully, players

can receive an object to add in their house. For that, player keeps the card and turn it backside on the corresponding color bordered square in the house card to be able to show the reward.
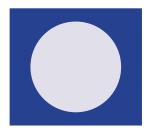
CHALLENGES CARDS

QooL CITY 48 challenge cards are divided for the four different areas, so 12 in each area. They are big enough, colorful, and contain proper information regarding QoL and CF areas trained. The image of the gift/rewards is appropriate.

Each card has two sides:

- On the front side, you will find the description of the challenge you have to achieve.

- On the back side you will find information about quality-of-life dimensions and cognitive functions trained in that specific challenge. On this side it also can be found QoL and CF points acquired, which can go from 1 to 3.

Quality of Life and Cognitive functions points correspond to two different shapes:

1 point of QdV   1 point of FC

According with challenges areas and,each categories, cards have each one a code written in the back side left up corner in Arial font size 8

Complete code will be as the following examples:

QoLnumber (one of QoL categories – see table below). Example: *QoL1*

1	Interpersonal relationship	2	social inclusion
3	Rights	4	Personal development
5	Self-determination	6	Physical wellbeing
7	Material wellbeing	8	Emotional wellbeing

or *CFletter* (one of the CF categories – see table below). Example: *CFa*

A	Calculus and problem solving
B	Language
C	Memory and attention to detail
D	Spatial orientation
E	Social & Emotional Wellbeing

Baseline game version has a 48 challenges cards deck. Twelve cards for each board area.

Professionals and relatives cand produce challenge cards adapted to players training needs in the various quality of life dimensions and cognitive functions. This further QoL and CF challenges cards are developed according to ID-GAMING guidelines for challenges cards development. All challenge cards should follow these guidelines.

- Challenges cards guidelines
  - ° Use Font Arial size 14 – 16 (or as big as possible)
  - ° Follow easy-to-read guidelines
  - ° Include ID-GAMING logo
  - ° Borderline corresponding to 4 board areas of color:
    - Public Services – Blue
    - Lifelong Education – Green
    - Leisure Time – Violet
    - Commercial Area – Orange
  - ° Each card has two sides. On the front side for QoL there is the description of the challenge with a picture. Instructions to complete the challenge written, following easy-to-read instructions. For CF there's the challenge and also a QR Code, if necessary. On the back side there is a high-quality photo of a gift (shaded in color according with board area) (table 2.1) There's also information about QoL and CF with points acquired. Have a QR Code to access CF Online Serious Game link, if applicable. QoL

and CF dot correspond to two different shapes: a star or a circle. QoLor CF points can go from 1 to 4.

QoL challenge cards are:

- Written in Font Arial size 14-16;

- Contain a simple description of a task, an action or activity that aims to work on a specific; QoL dimension, in a single short sentence;

- Contain a picture related to the task;

- If the task could be long, give a time limit information in a separate text box;

- If necessary, include conditions to do the tasks/Rules;

- Each challenge is identified in a category, with a text and a pictogram.

CF challenge cards are:

- Written in Font Arial, size as big as possible considering A5 size and the instructions;

- Contain easy tasks targeting each CF;

- Contain images and less text;

If a serious game online is available for that CF, contain a QR code.

SPECIAL SQUARES CARDS

Baseline version has 16 special squares cards. They are used to implement rhythm and further action to the game. Some of them have also implicitly challenges proposals that provide to players further opportunities to train QoL and Cf goals in context of performing a certain task. This specific type of special cards is signed with a small star on the right upper corner so that supporter can easily identify also that player is training QoL and CF objectives while playing. Each special square is signed with a star.

REWARD MINI-CARDS

Baseline version has 48 reward mini-cards representing real objects divided for

the different four areas of the city. Twelve rewards assigned cards for each board area.

When players succeed in a challenge, they may take a reward card with the back of the same color as the challenge made. Players can choose the item they want from the deck of that color or just take the top card of the deck.

These mini-cards will be put on the house card to complete the squares, paying attention to matching the colors.

The reward mini cards will be house furniture/equipment's/utilities. They are all different from each other, and on the back of these cards, there will be the same gift pictogram used in the challenge cards with the color of the corresponding area.

For playing QOOL City in the advance variant further elements are used:

SPECIAL POWER CARDS

QooL CITY has 8 special power cards that make the game more dynamic and to be used in advanced play variant. If players gain a super power, may use it right away or keep it for later, when most need it. At the same time players can't collect more than 3 super power cards. When have used the power, card returns to the deck.

BOARD ADD-ONS

4 add-on boards with extra challenges. These add-on boards can be placed on the city board, creating additional paths. They are independent from each other, so players can decide how many to use, from 1 till 4, depending on the level of complexity they want to explore.

BLANK CHALLENGE CARDS

Blank Challenge Cards are provided so that more challenges can be created according to the specific interests or needs players might have. This game element can be used to reinforce specific CF or QoL training purposes that have been assessed. Co-production methodologies are recommended to develop new QooL CITY challenges.

DELIVERING METHODOLOGY

QooL CITY can be played having 2 to 6 single players or teams of players per game so elements/resources can be assigned and organized efficiently and therefore the game can reach the objectives.

It can be played in its Baseline or Advanced variant. All assembling recommendations and rules are presented in the Rulebook.

Support from professionals or relatives should be available to players.

TECHNICAL REQUIREMENTS

If possible, having access to a tablet or mobile phone connected to the Internet to develop ICT serious game trough QR codes links.

The use of some ICT serious games may require having an account for to access the website.

We recommend using APP to read out lout challenge cards texts.

Having the necessary support to ICT tools and administrating accesses.

QooL CITY TRAINING PURPOSES

TRAINING NEEDS DEFINITION

During ID-GAMING development, data collection was made on ID-GAMING Quality of Life game use with training purposes supporting material needs were.

Besides the need of this methodological guidelines also a training toolkit was identified as needed and it was conceived to provide support to persons with intellectual difficulties, professionals and relatives for using quality of life game with training purposes.

Objectives conducting their existence are:

(1) create awareness and increase knowledge about the potential of ICT-Serious Games for training cognitive functions and increasing Quality of Life;

(2) be used as supporting materials in parallel and/or along the implementation

of the Quality-of-Life Training Game if needed;

(3) be adapted to the specific needs, capacities and learning difficulties of the different collectives involved in the target group (persons with intellectual difficulties, professionals and relatives), following Easy to Read and Universal design guidelines.

Themes addressed in the Training Toolkit are the following ones:

- Dimensions of QoL and CF;

- Impact of Cognitive Training in QoL;

- What are Serious Games and ICT-Serious Games?

- How to select ICT-SG to train cognitive functions?

- The role of Supports.

Partners had made research on this set of topics, having main conclusions and most important information in each one been adapted to and presented in easy to read.

While accessing ID-GAMING online training platform at https://id-gaming-project.eu/toolkit/ressources/, stakeholders can also access the Training Toolkit. There, easy to read information under each of the 5 topics above, can be found.

This training tool, under the title "Further Reading", also includes other common written materials (doc; pdf; ppt; infographics) and audiovisual contents (videos, ICT-SG tutorials).

Training Toolkit can be accessed here https://id-gaming-project.eu/toolkit/training-materials/, to support **QooL CITY** use with training purposes.

METHODOLOGICAL APPROACH

Refers to playing **QooL CITY** with a co-production approach involving on the task both young adults and adults with intellectual difficulties, professionals and relatives.

Player/teams of players are invited to play the game. Quality of life and cognitive functions challenges are explored and solved either with player/players individual or cooperative competencies, taking an active stance towards them.

For solving cognitive functions challenges, the interactivity provided using ICT mobile devices, such as tablets and mobile phones can also be enabled to favour training achievements.

When needed or whenever asked for, professionals and relatives give support either to clarify rules foreseen in rule books, solve doubts about challenges, facilitating decision making processes about challenges answers.

GAME CONTENTS

Game Elements access and contents

For playing **QooL CITY** game players and supports can access game elements by:

- Using the board version;

- Accessing ID-GAMING online training platform https://id-gaming-project.eu/toolkit/ressources/ to download and print **QooL City** game elements (instructions on how to print included);

- Accessing ID-GAMING online training platform https://id-gaming-project.eu/toolkit/ressources/ to use **QooL City** online game link.

While using the board version or having downloaded and printed all elements, the game is assembled using rulebook instructions.

Game goal

QooL CITY takes place in a city where you have just arrived, that you want to explore and enjoy.

You also got a new house, that you have to fill in with new objects to make it functional and nice.

In this game, you will be able to choose a character that will move around the city, and when going into a building, you will be asked to perform a challenge that will give you a reward for your house.

Try to collect as many rewards as you can to complete your house!

Start of the game

The player who most recently visited a different city takes the starting player marker.

End of the game

The game ends when a player/team completes the house card with 8 objects. 8 rewards mini-cards must be collected, 2 cards from each of the 4 areas in the city.

If challenges cards finished, before than a player/team completed a house card, the player/team with more objects in the house card is the winner.

As an additional activity, you can ask each team to count how many dots and stars they have on their challenge cards and reflect all together on the areas each one trained during the game. *A game session time depends on the goal completion.*

Baseline Version Gameplay

During the game players/teams are people having different characteristics, like gender, age, disability, etc. A range of diverse choices is presented to players/teams and choice must be made.

Each player/teams is now a newcomer in the city, and they want to explore it.

Player/teams has a new house which is empty, and they need to fill it in. To do so, they move across a city with different places/buildings.

Player/teams will move across the city by throwing a dice.

The path is designed as a street having some squares with different colors.

The player who most recently visited a different city starts and follow the direction of the arrow in Strat Square.

In the baseline version of the game, players main goal is to complete the house (8 objects).

The game finishes when the first team/player completes one house with objects.

Tha game challenges players/team to fill with different objects such as furniture,

equipment's/utilities, their own house that is empty.

In each area of the town, players must complete two challenges to obtain two house objects.

Support persons, together with other players, establishes the accomplishment of a challenge:

- For CF challenges the completion of the challenge is straightforward.

- For QoL challenges, effort and participation will be rewarded;

When a team has accomplished a challenge, they take a reward card with the back of the corresponding color (they could choose the object they want from the deck with the back of that color or simply take the top card of the deck); this contains a picture of a house element object and completes one house card square.

After completing a challenge, each player/team keep the challenge card.

Advanced Variant Version Gameplay

The main feature of the advanced versions is the possibility to have a more complex scenario and additional features that complexify the game.

We suggest to try Qool CITY advanced version, only after the baseline version. Detailed information on how to play is described in the rulebook.

In addition to the standard game materials, you'll need two specific additional components:

- 4 add-on boards with extra challenges. These add-on boards can be placed on the city board, creating additional paths. They have an additional type of board icons the special power icon.

- 8 special power cards

Players use the same set up as in the basic configuration, with some additional features:

1. Place on the city board one or more add-on boards in order to create a more complex path.

2. Place on the board the Special power cards in a downward facing stack.

The game proceeds the same way as in the basic version. The difference is in some additional rules:

- Super power cards: if you gain a super power, you may use it right away or keep it for later, when you most need it. At the same time, you can't collect more than 3 super power cards. When you have used your power, put it back to the deck.

- Exchange reward cards: players who have already gained 2 reward cards of the same area color, will trade additional objects of that color with other players, looking for the right partner for an exchange.

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ASSESSMENT METHODOLOGY DEFINITION

CF and QoL challenges and dots

Challenges cards are developed according to board areas and categories, either QoL or CF.

In each board area the following challenges can be trained:

Board Area	Challenges Categories													
	QoL[1]								CF[2]					
	1	2	3	4	5	6	7	8	Um	B	C	D	E	T
Public Services			4		2						3	2	1	12
Lifelong Education	2	2		4					1	1	1		1	12
Leisure Time	1	2				3		3		1		1	1	12
Commercial Area					3		4		2		1	1	1	12
	3	4	4	4	5	3	4	3	3	2	4	4	4	48

Table 1 - Distribution of challenges categories by board area and challenges categories

Players collect some QoL and CF dots and the amount of those dots can be discussed in the end trough an informal debate or group dynamic.

Next tables present per challenge cards QoL and CF dots addressed to each challenge.

Green		Lifelong Education				
Card #	Category	Domain	Name	Other areas trained	Qol dot	CF dot
1	Qol	1	Interpersonal relationship	Social & Emotional Wellbeing	1	1
2	Qol	1	Interpersonal relationship	Language, Emotional wellbeing	2	1
3	Qol	2	Social inclusion	Spatial orientation	1	1
4	Qol	2	Social inclusion	Language	1	1
5	Qol	4	Personal development		1	0
6	Qol	4	Personal development	Memory & Attention	1	1
7	Qol	4	Personal development	Self Dermination	2	0
8	Qol	4	Personal development		1	0
9	CF	A	Calculus and problem solving	Memory & Attention	0	2
10	CF	B	Language		0	1
11	CF	C	Memory and attention to detail		0	1
12	CF	D	Social & Emotional wellbeing	Interpersonal Relationships	1	1

Purple		Lifelong Education				
Card #	Category	Domain	Name	Other areas trained	Qol dot	CF dot
13	Qol	1	Interpersonal relationship	Attention to detail	1	1
14	Qol	2	Social inclusion	Personal development	2	0
15	Qol	2	Social inclusion	Spatial orientation	1	1
16	Qol	6	Physical wellbeing	Spatial orientation	1	1
17	Qol	6	Physical wellbeing	Memory	1	1
18	Qol	6	Physical wellbeing	Language	1	1
19	Qol	8	Emotional wellbeing	Language	1	1
20	Qol	8	Emotional wellbeing	Interpersonal Relationships	2	0
21	Qol	8	Emotional wellbeing			
22	CF	B	Language	Personal development	1	1
23	CF	D	Spatial orientation	Language	0	2
24	CF	E	Social & Emotional wellbeing	Interpersonal Relationships	1	1

Table 2 – Lifelong Education and Leisure time challenges cards QoL and CF dots

Orange		Lifelong Education				
Card #	Category	Domain	Name	Other areas trained	Qol dot	CF dot
25	Qol	1	Self-determination	Memory & Attention	1	1
26	Qol	2	Self-determination	Interpersonal relationships, Language	2	1
27	Qol	2	Self-determination	Interpersonal relationships, Language	2	1
28	Qol	6	Material wellbeing	Problem solving	1	1
29	Qol	6	Material wellbeing	Calculus	1	1
30	Qol	6	Material wellbeing	Memory & Attention	1	1

31	Qol	8	Material wellbeing	Calculus	1	1
32	CF	8	Calculus and problem solving	Physical wellbeing	1	1
33	CF	8	Calculus and problem solving		0	1
34	CF	B	Memory & Attention	Spatial orientation	1	1
35	CF	D	Spatial orientation	Memory & Attention	0	2
36				Interpersonal relationships, Language		

Blue	Lifelong Education					
Card #	Category	Domain	Name	Other areas trained	Qol dot	CF dot
37	Qol	3	Rights	Memory	1	1
38	Qol	3	Rights	Memory	1	1
39	Qol	3	Rights		1	0
40	Qol	3	Rights	Physical wellbeing	2	0
41	Qol	5	Self-determination	Memory & Attention	1	1
42	Qol	5	Self-determination	Memory & Attention	1	1
43	CF	C	Memory and attention to detail		0	1
44	CF	C	Memory and attention to detail	Calculus	0	2
45	CF	C	Memory and attention to detail		0	1
46	CF	D	Spatial orientation	Self determination	1	1
47	CF	D	Spatial orientation	Memory & Attention	0	2

Table 3 – Public Services and Commercial Area challenges cards QoL and CF dots

Final Assessment related with the quality of life and cognitive functions competences (skills, attitudes and knowledge) use and sharing in day-to-day life is made in informal group discussion or group dynamic once the game is finished.

Professional or relative that have facilitated (or even played with other players) the game experience, will propose a group discussion or group dynamics with all participants in order to reinforce the next learning objectives:

Players

- To be aware that by playing the game they can train and reinforce or improve QoL and CF capabilities, together with digital skills when playing the online version of the game.

- To be aware about the relationship between the game challenges and QoL and CF dimensions or characteristics.

- To encourage players to practice and use the skills worked on and improved

in the game on a daily basis.

• To acknowledge possible improvements, no matter how small, in terms of quality-of-life dimensions and cognitive abilities.

Supports

• To improve their knowledge about QoL and CF through a gaming environment.

• To be aware of the intensity of support they can offer to the person they support when playing

• Develop and reinforce a positive, fruitful and pedagogical attitude of support that is, by being respectful, working as a team, being flexible and supporting all opportunities for players learn by themselves with adequate support.

As players will keep challenges cards when they succeed, at the end of the game it can be good to remember what happened in each challenge and how this was related with QoL and CF dots.

LEARNING ENVIRONMENT DEVELOPMENT

• Good atmosphere of collaboration and cooperation.

• Positive environment.

• Accessible for all.

• Professional and relatives, besides support also generates enthusiasm among players.

• Focus on trainee's experiences and capabilities.

Use of Blank Challenge Cards

Blank Challenge Cards template is provided so that more challenges can be created according to the specific interests or needs players might have. This game element can be used to reinforce specific CF or QoL training purposes that have been assessed. Co-production methodologies are recommended to develop new QooL CITY challenges. This way Qool CITY will be customized on it's CF and QoL challenges depending on the pplayer's needs.

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	QoL		CF
1	Interpersonal relationship	A	Calculus and problem solving
2	Social inclusion	B	Language
3	Rights	C	Memory and attention to detail
4	Personal development	D	Spatial orientation
5	Self-determination	E	Social & Emotional Wellbeing
6	Physical wellbeing		
7	Material wellbeing		
8	Emotional wellbeing		