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UpGameIn

Upskilling of Game Industry for more Inclusive and environmental friendly games

UpGameIn- Upskilling of Game Industry for more Inclusive and environmental friendly games

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About the project

The “UpGameIn- Upskilling of Game Industry for more Inclusive and environmentally friendly games” project is an initiative aimed at transforming the game industry by integrating principles of inclusivity, accessibility, and environmental sustainability into game design. Through collaborative workshops, curated resources, and vocational training, UpGameIn empowers game studios, educators, and organizations to create games that not only entertain but also address pressing global challenges outlined in the Sustainable Development Goals (SDGs). By fostering cooperation between industry stakeholders and promoting the inclusion of marginalized groups, UpGameIn is shaping a more inclusive, equitable, and environmentally friendly gaming ecosystem for the future

THE IDEA BEHIND

The UpGameIn project is driven by the recognition of the immense potential of the game industry to not only entertain but also educate and promote social change. However, this potential can only be fully realized if games are designed to be inclusive, accessible, and environmentally friendly. The idea behind UpGameIn is to address the existing gaps in game design by providing resources, training, and guidelines that empower game industry professionals and educators to create games that cater to diverse audiences and address pressing global challenges outlined in the Sustainable Development Goals (SDGs) and circular economy principles. By fostering inclusivity, promoting diversity, and considering environmental sustainability throughout the game development process, UpGameIn aims to elevate the industry and contribute to a more inclusive, equitable, and environmentally friendly gaming ecosystem.

OBJECTIVES

The project objectives are to:

- Adapt to the needs of the game industry by facilitating co-creation learning training workshops and developing a library collection of frameworks, methodologies, and guidelines for designing inclusive, accessible, and environmentally friendly games.
- Adapt vocational education and training (VET) to meet industry demands by creating guidelines for upskilling game design teams and improving the skills of VET educators to teach topics related to inclusivity, accessibility, and environmental sustainability.
- Update Game-Based Learning pedagogy and didactics to foster a more inclusive and environmentally friendly future, ensuring that educational institutions and organizations leverage games as effective tools for learning and social change.
- Empower inclusion and accessibility of vulnerable or marginalized groups in the field of games by providing resources and training that enable the creation of games playable by all individuals, regardless of their abilities, age, culture, economics, education, or race.
- Create materials, including a resource library and training resources, to disseminate partnership experiences to both VET trainers and the game industry, with the goal of developing the skills of game studios and VET organizations in creating more

inclusive, equal, and accessible games that address environmental challenges and promote a circular economy.
- Enable cooperation between educational institutions, NGOs, and businesses to address key European priorities, including adaptation of VET education to labor needs, enhancement of inclusion and diversity, and the fight against environmental destruction and climate change

TARGET GROUPS

The main target groups of the project are

- Game studios and professionals
- VET organizations, educators, and professionals
- Educational organizations, especially those focused on game-based learning
- Organizations empowering vulnerable groups
- Members of partnership, game societies and groups
- Institutions or individuals interested in the project

Green recommendations

The partnership of UpGameIn has agreed on a green approach to the whole project and its outputs in alignment with the EU's guidelines.

Thus, it is highly recommended and encouraged that this approach be adopted by any future game designer or stakeholder who will use the following guidelines.

1. Digitalise: Instead of using physical materials for the following activities, try to adjust them to digital alternatives. Some examples are: shared documents for the brainstorming of the groups, digital posters and digital presentations, to name but a few.
2. Recycle: Sometimes the digital form may be inconvenient or exclusionary for certain groups. In the case of physical material usage, be sure that all the expendables are both recycled and recyclable (e.g. paper).
3. Re-use: There is no need to print or purchase your educational material again and again. It is highly recommended to "upgrade" your reusable printed material (e.g. on Module 1 - Activity 1: 3 A4 papers to write in side M, S and R letters are needed. These papers can be laminated and reused multiple times). Another recommendation could be to purchase small whiteboards, so that the participants waste less paper for the activities.
4. Adjust and improvise: Every activity of these guidelines needs to be adjusted to the participants' needs and abilities. The best equilibrium between accessibility and green awareness needs to be found, depending on the country, the space, the time, and any other factor that makes the upcoming workshops unique.

Scope of the document

This document is addressed to VET trainers in the field of game designers and contains 4 modules on the topic of accessibility in games.

Human Bingo - Icebreaker

General information

Duration: 10–15 min

Nr of participants: 8-16 participants

Objectives of the activity:

- warming up the participants
- encourage interaction among participants

Materials needed:

- printed bingo sheet (for in-person participants) or copy of bingo sheet shared in ppt/Miro board (see Annex for the template)
- pens (or digital whiteboard)
- timer (or relevant digital app)
- speakers to set background music (optional)

Detailed description of the activity

Preparation

- The facilitator has to print out the bingo activity sheet (see Annex 1), If they feel the statements of the bingo sheet do not fit the audience's profile, they can feel free to adapt or even replace them.
- In case of an in-person event, the facilitator has to rearrange the space and the equipment inside it so as to ensure that there are clear walking paths.

  Attention: For participants with low mobility, seating options should be considered.

Implementation

Step 1: Handouts and explaining the rules (3 minutes)

The facilitator calls the participants to stand up and form a circle. After handing out the printouts, the facilitator explains the rules. The participants have to wander around the room and ask other participants whether they fit the description included in a square of the bingo table. Whoever completes first a line (row, column, or diagonal) wins. To validate their win, they have to shout out "Bingo".

Disclaimer: The aim of the activity is to connect and have fun. Participants should share information they feel they are comfortable to do, avoiding disclosing personal information.

Step 2: Quick demonstration of rules (1 minute)
The facilitator calls a volunteer to demonstrate the rules of the activity

Step 3: Actual play (no more than 7 min)
The facilitator sets the timer and optionally background music. Participants are encouraged to mingle freely and discuss with other participants about the questions in bingo cards. In case of mobility issues, the facilitator can propose seated pairing with rotations every 60–90 seconds.

Step 4: Verification of information (3 minutes)
When one of the participants calls Bingo, the rest of the participants stop. To confirm the victory, the facilitator has to quickly share the bingo sheet of this participant. IMPORTANT: All participants who won should celebrate their victory. If there is some remaining time, the facilitator can propose a second round of bingo

Step 5: Debriefing (1 minute)

The facilitator should reserve some time for debriefing of the activity.

Indicative questions:

- What surprised you the most from the answers received?
- With which one of the participants do you have more in common with?
- What (new) did you discover about others?

Variations: Accessibility & inclusion options

- **Quiet version:** In case there is a large number of participants and/or limited space, the facilitator could split them into pairs. The facilitator will signal every 90 seconds for participants to switch partners.
- **Easier version:** The facilitator can create a bingo activity sheet with less questions in the case that the group of participants are new to each other or there are time restrictions.
- **Enhance readability:** The facilitator can edit the bingo sheet by using a bigger, sans serif font (e.g., Arial, Verdana). They also have to ensure high contrast between text and background to assist participants with low vision. Digital copies of the bingo sheet could also be used, so as to assist persons who need to zoom in or use screen readers. Lastly, the facilitator, when designing the Bingo sheets, should also avoid using small texts or provide color-coded information
- **Mobility-friendly version:** If participants have limited mobility, the facilitator can adapt the format by having others rotate around seated participants, or by conducting the game in pairs while seated.
- **Inclusive question design:** The facilitator should ensure the statements included in the bingo squares are culturally neutral and inclusive and avoid items that might reveal

personal information or bias toward specific life experience, Topics suggested could be fun and open e.g. hobbies, interests or universal life experiences.

Module 0– Pre & Post Self-Assessment

General information

Duration: 5-10 min

Objectives of the activity:

- understand and visualize the actual impact of training activities
- assist VET trainers to redesign their methodologies

A set of 9 Likert scale (1-5) questions can be used in both sessions.

Materials needed

- Online survey tools (e.g. Mentimeter, Kahoot, Google Forms etc)
- Computers/smartphones/tablets

Detailed description

Preparation

The facilitator creates an online questionnaire that contains the following set of Likert scale questionnaires, one to be used in pre-assessment and a second one to be used in post assessment session.
The Likert scale is from 1 to 5 with

- 1-> not at all
- 2 -> a little
- 3-> somewhat
- 4-> quite a lot
- 5-> very much

The questionnaire is divided into 3 sections.

Section A: Knowledge and Understanding

Q1. I know the main models of disability (medical, social, and rights-based).
Q2. I know the main dimensions of accessibility in games.
Q3. I can identify accessibility barriers in a game.

Section B: Application and Skills

Q4. I can apply Universal Design principles in my own game projects.
Q5. I can integrate accessibility features (e.g., subtitles, remapping, color options).
Q6. I can create and use an accessibility checklist for playtesting.

Section C: Attitudes and Awareness

Q7. I believe accessibility makes games better for everyone.
Q8. I see accessibility as a creative opportunity, not a limitation.
Q9. I feel confident discussing or applying accessibility practices in game design.

For the post assessment, the facilitator can create the following open-ended questions.

Q10. Which activity helped you most to understand accessibility in game design?

Q11. What is one idea or tool you plan to apply in your future projects?

Implementation

The facilitator shares the link to the questionnaire and lets participants fill it in.
An informal discussion, especially in post assessment session, can follow.

Module 1: Models of Disability and Their Relevance to Game Design

Theoretical Background / Key Concepts

The **Human Rights-based model**

Topics to be covered are

- models of disability : medical model, social model, rights based model
- accessibility related terms

Why it matters

Understanding various models of disability assists game designers to empathise with persons with disabilities, get in their shoes, and understand that barriers that these people face are created by the environment and not from them. This understanding is very important since designers can be held creatively accountable for creating accessible game experiences for all.

Learning Objectives

By the end of this module, participants will be able to:

1. Describe and distinguish between the main models of disability
2. Understand more about the notion of accessibility
3. Reflect on how each model influences design decisions in games.

Activity 1: Three perspectives, one reality

General information

Duration: 30-50 minutes
Nr of participants: 6-15 people

Objectives of the activity

- discuss and advocate on the issue of disability
- learn about the different models of disability
- make participants empathise with persons of disability
- energize participants

Materials needed

- 3 A4 papers to write in side M, S and R letters (representing medical, social and rights-based model)
- tape to fix the papers on the floor
- timer (or relevant digital app)
- speakers to set background music (optional)

Detailed description of the activity

Preparation

The facilitator prints or writes with their hand on 3 A4 papers the letters M, S, and R (representing medical, social and rights-based model. They should pay attention to the font size and the contrast between letters and paper colour so as to be easily readable.
Then, they can pick some of the statements that are included, depending on the profile of the participants. The statements are indicative so they can be modified or replaced as well.
When in the venue, the facilitator has to rearrange the space into 3 distinct areas. They can place the papers in the middle of these areas. It is important that these 3 distinct areas have enough space for participants to wander around.
In case there are participants with limited mobility, the facilitator can provide alternatives (see relevant section with variations)

Implementation

Step 1: Explaining the rules (5 minutes)

Before proceeding to the rules, it is vital to explain the models first and then conduct the exercise in a way that asks the participants which model each specific sentence could be used. Embodied experience evokes stronger emotional responses than traditional approaches, so it's important to depersonalize the experience and provide the context beforehand.

The facilitator calls the participants to stand up and form a circle and explains the rules. The facilitator makes a statement, and participants have to think about which model this statement links to and move to stand next to it. The facilitator counts the answers and then they can initiate a discussion about their choice. Then, they announce the model this statement is linked to and continue to the next statement.

Step 2: Quick demonstration of rules (1 minute)
The facilitator calls a volunteer to demonstrate the rules of the activity.

Step 3: Actual activity
The facilitator starts announcing the different statements (it is recommended to pick 10-12 statements depending on the Nr of participants). The participants move towards their choice. The facilitator can ask 2-3 participants to comment on their choice. Indicative questions to

guide the discussions could be “Elaborate more on your choice” or “Could this also be associated with another model?”

The facilitator can elaborate more on why a certain model is linked to this statement. The procedure goes on so as to cover a variety of topics depicted in the statements.

Attention: The discussions can be quite lengthy, so the facilitator can ask participants to justify in short (approx 1 minute) about their choice.

Step 4: Debriefing

At the end of the activity, all participants return to the center of the venue. The facilitator asks participants to openly share their insights/feedback. Indicative questions to facilitate the discussion could be “Which statement was the most confusing to you?”, “After my justification, did you feel you could change your mind about one statement?, “Which model do you feel it prevails today? “ Regarding the game design, how each of them affects the design process.”

Accessibility and inclusion Variations

Quiet mode: In the case of a large group of participants or a limited space, participants can be divided into 2 smaller groups. The facilitators share with them different statements, the participants note down their preferences and share their conclusions in the plenary.
Seated mode: In case of a small space or participants with mobility difficulties, the participants can remain seated. The facilitator can distribute voting cards and ask participants to lift the vote. The facilitator could visually document the answers.
Combined limitations: In case of mobility, visual, or hearing impairments, the facilitator could read and display visually the statements, and participants could vote using online survey tools (eg mentimeter, google forms)

Statements

Statement	Model	Facilitator Notes
Disability is a medical issue that can be addressed with treatment or recovery options	**M**	This statement is the key concept of the medical model. The disability is rooted in the body of the person. The only viable solution to this problem is to find a suitable treatment or recovery scheme.

Society creates the disability through the barriers it ~~imposes~~.	**S**	This statement is core to the social model. Disability is not considered a problem. The interaction of a person with environments that are not accessible is the problem. In other words, society is held accountable for the limitations and exclusion these persons face.
All persons should participate equally, regardless of their abilities	**R**	This quote is linked to the UNCRPD treaty for the rights of people with disabilities. Participation is a legal and ethical obligation, and not rooted to only awareness or philanthropy orientation.
Technology can repair disability	**M**	This attitude focuses on repair and not to acceptance. It minimizes the accountability of society towards non accessible environments.
Accessibility is a right of every citizen and a statutory obligation.	**R**	Having this starting point, the facilitator can discuss relevant accessibility policies e.g. universal design policies. With such approaches, accessibility is linked to the regulatory framework and is not based only on goodwill.
If a child with a disability cannot keep up with school, e.g. has bad grades, it should go to a special school.	**M**	Such statements make a certain person accountable, meaning that “the child cannot fit in Discuss on how the social model could shift such attitudes, e.g. how can a school be accessible and inclusive?
The society should change its attitudes and vocabulary towards disability	**S**	This statement shows the disability culture. Certain wording should create stereotypes linked to disabilities e.g, persons with special needs vs persons with disabilities.
Accessibility measures are costly and are addressed to a very small percentage of the population.	**M**	This argument legitimizes exclusion. Accessibility measures benefit all persons.

Disability is part of human nature	**R**	Human Diversity approach: Disability should not be considered as a problem but part of human nature and experiences.
Persons with disabilities should adjust to existing measures, not the opposite.	**M**	It reflects the logic of “adapt or be left out.
Disability could be a temporary or dynamic issue; any person may face it during their lifetime.	**S/R**	This statement considers disability as a probability during the human life cycle. Within this spectrum, discriminations are eliminated.
Media representations of disabled persons often portray them as individuals who overcome boundaries through “superhuman” abilities.	**S/M**	Persons with disabilities are often portrayed as superhumans. This hinders the normalization of diversity.
The society/state is responsible for demolishing all existing boundaries	**S/R**	This statement bridges the social and rights-based models. On one hand, it highlights society’s responsibility, while at the same time it safeguards the right to participation.
Employing persons with disabilities is considered an act of Corporate Social Responsibility (CSR).	**M**	This statement portrays employment as an act of “kindness.”, reproducing dependence rather than equality. Employment should be understood as a matter of equal rights.

Activity 2 Disability crossword

General information

Duration: 15–20 minutes

Nr of participants: Flexible (individual or small groups of 2–4 people)

Objectives of the activity

After the activity, participants will be able to:

- Familiarize with key terminology related to disability, accessibility, and inclusive game design.

Materials needed:

- Printed or digital crossword grid and clues(see template in Annexes).

- Pens/pencils or access to an online crossword platform

Detailed description of the activity

Preparation

The facilitator had to print out copies of the crossword (See annexes) or transfer it to an online platform.

Implementation

Step 1: Explaining the rules of the activity (5 minutes)
The facilitator hands out the printouts and explains the rules of the activity. Participants can work individually or in groups of 2.

Step 2: Actual activity (15 minutes)
The participants fill in the crossword puzzle.

Step 3: Debriefing (5 minutes)
The facilitator presents the correct answers of the crossword puzzle. Then, they initiate discussions e.g. Which clue was the most puzzling? Were there terms you were more familiar with?

Answers

Word	Type	Clue
Accessibility	Across	The design of products, devices, or environments usable by everyone, including persons with disabilities.
Barrier	Down	Anything that limits participation or access.
Impairment	Across	A functional limitation of the body or mind.
Disability	Down	The interaction between impairment and an unaccommodating environment.
Inclusion	Across	Ensuring equal opportunities and participation for all people.
UniversalDesign	Across	Design approach usable by everyone, without adaptation. (2 words with no space)
AssistiveTechnology	Down	Devices that support or enhance a person's abilities. (2 words with no space)

Empathy	Across	The ability to understand and share another person's perspective.
Diversity	Down	Variety in backgrounds, abilities, and perspectives.
Equity	Across	Fairness is achieved by providing what each person needs to succeed.
Representation	Down	Reflecting diverse identities and experiences in media and games.
AccessibilityFeature	Across	In-game option that supports players with specific needs (e.g., subtitles, remappable controls).
SocialModel	Down	A framework that locates disability in barriers, not individuals.
MedicalModel	Across	A framework that views disability as a problem in the person.
RightsModel	Down	A framework seeing access as a human right and duty for inclusion.

Accessibility and inclusion variations

For participants with visual disabilities: audio-tactile displays and screen readers that speak clues and letters. These tools provide auditory cues for clues, number of letters, and typed answers, allowing interactive gameplay through keyboard commands, making digital and even print puzzles accessible.

Activity 3 Barrier Mapping

General information

Duration: 20 minutes
Nr of participants: 9–20 persons

Objectives of the activity:

After this activity, the participants can:

- Understand how each disability leads to different perceptions, responsibilities and solutions
- Realize how the barriers that persons with disabilities face can affect game design
- enhance their empathy, critical thinking and design skills on accessible solutions.

Materials needed:

- A4 PAPERS
- sticky notes of different colors,
- pens/pencils,
- Miro board/Canva whiteboard, share ppt (for online participation)
- legends of disability cards game

Detailed description of the activity

Preparation

The facilitator arranges the workspace so that participants can work in groups and puts on the table pens, pencils and sticky notes.

Implementation

Step 1: Explaining the rules (5 minutes)
The facilitator divides participants into small groups (approximately 3–4 people per group). Each group draws 3 role model cards from the *Legends of Disability* game.

The facilitator explains that participants must identify the barriers faced by the role models they selected and explore how these barriers could be transformed into design solutions.

Participants record their ideas in tables they draw on A4 sheets. Each group creates a table with three columns and two rows:

- The first row includes the categories under which their answers might fall — medical model, social model, and rights-based model.

- In the second row, they identify barriers corresponding to each model and propose solutions to overcome them in daily life.

- They may also include design solutions for games that address or remove such barriers.

Step 2: Actual Activity (30 minutes)

Groups fill in the tables with ideas on possible barriers and solutions. If they feel there is time left, they can pick another card.

Step 3: Table Gallery (20 minutes)

Participants walk around the room, reading the ideas of the rest of the groups. The facilitator wanders around the tables and notes down similarities and deviations in approaches

Step 4: Debriefing (5 minutes)

The facilitator summarizes the findings of the teams.

Accessibility and inclusion variations

In case of participants with visual disabilities: Ask the whole group to note their answers in a shared online document, so that the disabled participants to be able to use screen readers. (Legends of Disability digital version is required)

Module 2: Dimensions in Accessibility

Theoretical framework

Having in mind the potential accessibility barriers in game design, a beneficial approach that applies to our objectives is the one of the University of Limerick. According to their study, there are 6 types of disabilities (University of Limerick, n.d.).

a. auditory,
b. visual,
c. motor
d. cognitive
e. learning and neurological,
f. mental
g. variable (a combination of the above)

Baker (n.d) combines the specific disability categories with gaming by introducing game accessibility through five categories of needs for video games

a. motor limitations/linked to controls and mobility features of the game
b. hearing impairments/ linked to accessibility features needed for the game
c. visual impairments
d. speech accessibility/ linked with voice chat and speech recognition
e. cognitive accessibility/ linked to an individual's memory, processing speed etc
f. the overlapping of these categories is noted

Last but not least, Baltzar's et al (2023) contribution focuses on the **social accessibility**:
A combination of inclusive game design, in-game features, and social guidelines that aim to foster inclusive social structures and multimodality in communications amongst players, while gaming or socially interacting with aspects of game culture."

Learning objectives

- learn about different types of accessibility
- familiarize themselves with the persona tool, a tool to be used for identifying player profiles
- recognize various barriers in games
- create informal strategies for designing accessible games

Activity 1: Mix and match: associate barriers with various accessibility types

General information

Duration: 20–25 minutes
Nr of participants: 6–20 persons

Objectives of the activity:

- familiarize with various types of accessibility
- understand relationships between barriers and design solutions and barriers linked to them

Materials needed

- cards with barriers, design solutions and (see annex 2 for examples of content of the cards)
- cards with types of accessibility
- Miro board (for online workshops)

Detailed description of the activity

Preparation

The facilitator prepares barrier cards, design solution cards and types of accessibility. They can find indicative topics in the Annex from which they can create their cards. They can elaborate and prepare more solutions if needed.

The facilitator places the cards in 3 different piles and places them on a table. They can also leave each pile in different spots in the class. Alternatively, they can also write the information in differently colored sticky notes and place them on a table (or various tables inside the class)

Implementation

Step 1: Explaining the rules (5 minutes)

The facilitator presents briefly, either orally or with a short presentation, the meaning of each type of accessibility. Then, they explain that participants have to associate each barrier and solution with the respective type of accessibility.

Step 2: Quick demonstration of rules (1 minute)

The facilitator calls a volunteer to demonstrate the rules of the activity.

Step 3: Actual activity (15 minutes)
The participants work in small teams (2-3 persons). They draw 3 cards, one from each pile. If

the combination is valid, they keep drawing a second set of cards. If not, they can trade with other teams so as to find a correct or more reasonable mix.

When team members agree, they can place the combination of cards on the table (or stick it on a wall.

Step 4: Presentation, discussion, and debriefing (15 - 25 minutes)

Each team presents its combinations. The facilitator, then, initiates a discussion to further elaborate on the link with game design. Indicative questions to guide the discussion would be: "Which design solutions benefit all players universally?", "In which type of games could you use such solutions?", "Which player category would benefit the most?", "Which barriers were the most difficult to associate with?", "How do players needs vary among different types of accessibility?" etc

Accessibility and inclusion variations:

Participants with visual disabilities: Provide an alternative that either includes screen reading (online workshops) or properly engraved material.

Participants with motor disabilities: Provide alternatives, including voice commands or typing.

Activity 2: Persona development

General information

Duration: 30-40 min
Nr of participants: 6-20
Objectives of the activity:
After this activity, the participants will be able to

- understand how they can create different player profiles (personas) to understand different accessibility needs
- to use the persona template in their everyday practices
- to transfer the theoretical framework of dimensions of accessibility in certain occasions of game design

Materials needed

- printouts of template Plaer persona (see Annex)
- pens, pencils, A4 blank papers

Detailed description of the activity

Preparation

The facilitator prints the persona template and prepares the space so the participants can work in teams.
They can also transfer the template in a digital format.

Implementation

Step 1: Explaining the rules (5 minutes)

The facilitator briefly explains the rules of the activity. They explain that a persona is a fictional but realistic character that represents a certain group of players. This tool allows game designers to understand the needs, incentives and barriers they face.

The participants should fill in the persona template in groups of 2. They can either create an imaginary persona or pick one from the cards of the Legends of Disability game, designed by Challedu. They can focus on their daily life and interests. Then, they have to ideate on how their persona plays different kinds of games, which barriers they confront, which design features may assist them and/or how the design of certain types of games they prefer may need to change.

Step 2: Actual activity (30 minutes)

The players brainstorm so as to create their fictional persona. They have 15 minutes to fill in each page of the persona template

Step 3: Presentations (10-15 minutes)
Each team presents briefly their persona (2-3 minutes). The facilitator keeps notes so as to later highlight barriers, solutions, commonalities and deviations among teams.

Step 4: Debriefing (5 minutes)

The facilitator briefly discusses barriers, solutions, commonalities and deviations they identified among teams. Then a short discussion can follow with a key question: How can my perception of game design change when I step into the shoes of another person?

Accessibility and inclusion variations

Some persona games can be triggering for participants. Be sure that the activity is well explained in advance and all the participants feel safe to proceed.

Some participants may not feel comfortable being exposed for presentation purposes. Make clear that the facilitator can present the group's notes.

Activity 3: Accessibility detective: spot and redesign

General information

Duration: 45-60 min
Nr of participants: 6-20
Objectives of the activity:
After this activity, the participants will have

- develop their critical thinking and observation skills regarding accessible design
- learn how to
- to transfer the theoretical framework of dimensions of accessibility in certain occasions of game design

Materials needed

- computers/tablets/smartphones
- blank A4 papers
- pens, pencils etc
- internet connection
- Accessibility guidebook

Detailed description of the activity

Preparation

The facilitator rearranges the space so participants can work in groups (3-5 persons).

Implementation

Step 1: Explaining the rules (5 minutes)
The facilitator divides the participants into two groups. Each group picks 1-2 games they are familiar with and have played multiple times. They could also search online for any games. The goal is to identify game elements that might hinder the game experiences of players with different profiles. They should identify potential accessibility issues and note down which type of accessibility affects and possible design solutions.

Step 2: Actual activity (45 minutes)
The groups can note down all the aforementioned information.
Then, they have to visualize and summarize their findings into posters

Step 3: Presentations (10 -15 minutes)

Each team presents the poster they created. The facilitator can encourage participants to initiate short discussions.

Step 4: Debriefing (5 minutes)

After all groups have presented their activities, the facilitator starts a short debriefing session. Indicative questions to guide the discussion would be " Which redesigns seem to be compatible with a greater audience?", What is the relationship between aesthetics and functionality when it comes to accessible design?

Module 3: My accessibility toolkit for game design

Theoretical Background / Key Concepts

Instead of modifying existing games to be more accessible, the ideal approach would be to include an accessibility perspective during the game design phase. Following that as an example, you secure disabled individuals from being excluded. Also, resources related to additional design, brainstorming and implementation of accessibility features are avoided. In alignment with the social model of disability, the focus is on the removal of the societal barriers to the games, “rather than just adding to them some add-on features. (Cezarotto, Martinez, & Chamberlin, 2022)”

Design Approaches:

- Universal Design: Games designed to be accessible to anybody, regardless of their abilities.
- APX Triangle (AbleGamers, n.d.) : a set of design patterns that empowers game designers to identify accessibility barriers and brainstorm solutions. (A: Accessibility, P: Player Agency, X: Experience)
- Effective inclusive design (Westin & Dupire, 2016): The inclusion of disabled designers and the strategic partnerships with advocacy groups to contribute to the game design.
- Diverse representation in different stages of design, development and testing of the game (Cezarotto, Martinez, & Chamberlin, 2022).
- Community engagement

Tools and practices to foster accessibility in games:

An indicative list of interesting tools and guidelines

- Gameaccessibilityguidelines.com,
- Microsoft (Xbox) Accessibility guidelines
- IGDA guidelines
-The games Accessibility Knowledge base
-Meeple like us
-Accessibility in gaming resources (google doc document with relevant resources)

Learning Objectives

By the end of this module, participants will

- have familiarized themselves with the tools and guidelines that will assist them in creating an accessible game
- have created an accessibility checklist, tailored to their needs.

Activity 1: Accessibility features for digital games -> create a poster

General information

Duration: 60 min
Nr of participants: 6-20
Objectives of the activity:
After this activity, the participants will be able to

- develop accessibility guidelines for digital games

Materials needed

- computers/internet connection
- accessibility guidebook of UpGameIn
- pens/pencils
- A4 Papers

Detailed description of the activity

Preparation

The facilitator prepares the space so the participants can work in teams. They can email beforehand the Accessibility Guidebook of UpGameIn so participants can familiarize themselves with the topic.

Implementation

Step 1: Explaining the rules (5 minutes)
The facilitator divides the participants in groups of 3-5 persons. Then, each group has to decide on one topic they will create a poster - it could be guidelines/toolkits already in the guide or they can propose another toolkit/sets of guidelines.

Step 2: Actual activity (40 minutes)
The group creates a poster on the topic they selected. They could focus on “Audio & Subtitles”, “Controls”, “Visual Interface”, “Gameplay Options” and other features. The posters can also include existing best practices or own sketches to furtherly explain the guidelines.

Step 3: Gallery walk(15 minutes)
Participants stick the posters on the wall - or display them on screen. Then, the rest of the participants walk around the rest of the posters and leave comments on the posters created.

Step 4: Debriefing (5 minutes)
The facilitator opens up a debriefing session guided by these indicative questions

- Which guidelines did you find most useful?
- Were there any features you were not aware of before?
- How could you integrate them into your own projects?

IMPORTANT NOTE: In case of limited time, activity 1 of this module could be combined with activity 2.

Accessibility and inclusion variations do not feel comfortable presenting their ideas, they could share them with the coordinator of the activity

Activity 2: Accessibility features for physical games -> create a poster

General information

Duration: 60 min
Nr of participants: 6-20
Objectives of the activity:
After this activity, the participants will be able to

- have familiarized with accessibility guidelines for digital games
- propose potential new guidelines/toolkits

Materials needed

- computers/internet connection
- accessibility guidebook of UpGameIn
- pens/pencils
- A4 Papers

Detailed description of the activity

Preparation

The facilitator prepares the space so the participants can work in teams. They can email beforehand the Accessibility Guidebook of UpGameIn so participants can familiarize themselves with the topic.

Implementation

Step 1: Explaining the rules (5 minutes)
The facilitator divides the participants in groups of 3-5 persons. Then, each group has to decide on one topic they will create a poster - it could be guidelines/toolkits already in the guide or they can propose another toolkit/sets of guidelines.

Step 2: Actual activity (40 minutes)
The group creates a poster on the topic they selected. They could focus on topics such as materials for accessibility, rules and difficulty mode, cooperative mechanisms, visual and hearing accessibility and inclusion. The posters can also include existing best practices or their own sketches to further explain the guidelines.

Step 3: Gallery walk (15 minutes)
Participants stick the posters on the wall - or display them on screen. Then, the rest of the participants walk around the rest of the posters and leave comments on the posters created.

Step 4: Debriefing (5 minutes)
The facilitator opens up a debriefing session guided by these indicative questions

- Which guidelines did you find most useful?
- Were there any features you were not aware of before?
- How could you integrate them into your own projects?

IMPORTANT NOTE: In case of limited time, activity2 of this module could be combined with activity 1.

Accessibility and inclusion variations

Activity 3. Before you test, create your own accessibility checklist

General information

Duration: 40 min
Nr of participants: 6-20
Objectives of the activity:
After this activity, the participants will

- summarize all the knowledge they acquired during the training
- get acquainted with various checklists
- create their own customized their own checklist

- Create a testing framework for their games

Materials needed

- computers/internet connection
- accessibility guidebook of UpGameIn
- pens/pencils
- A4 Papers

Detailed description of the activity

Preparation

The facilitator prepares the space so the participants can work in teams. They can email beforehand the Accessibility Guidebook of UpGameIn so participants can familiarize themselves with the topic.

Implementation

Step 1: Explaining the rules (5 minutes)
Participants can either work in pairs or individually. Building on the previously acquired knowledge, they will create their own tools ready to be used.

Step 2: Actual activity (30 minutes)
The checklists participants create should include all the accessibility categories that were discussed during module 2.
Participants create their own rapid checklists (10 features/ category).

Step 3: Feedback (20 minutes)
Individuals or groups exchange checklists. They comment on issues/guidelines that were omitted.

Step 4: Expert Review (5 minutes)

The facilitator presents an official checklist for participants to compare to their lists.

Accessibility and inclusion variations

- Be sure that all the participants feel comfortable with their pairs, if they don't work individually

Module 4: Case studies and redesign of games

Learning Objectives

By the end of this module, participants will

- have familiarized with games designed with different types of accessibility in mind
- have familiarized with testing protocols
- have designed their own games.

Activity 1. Case study presentation: Legends of Disability

General information

Duration: 30 minutes
Nr of participants: n/a
Objectives of the activity:

After this activity, the participants will be able to

- understand various ways to design the same game concept and address at the same time different accessibility types.
- learn about Challedu's methodology of cocreation of games

Materials needed

- computer/internet connection
- projector
- Legends of disability role model game
- ppt of the game
- Methodology guidebook.

Detailed description of the activity

Preparation

The facilitator adapts the presentation of Legends of disability game so as to fit the needs of the audience. They can print and download the variations of the game

Implementation

Step 1: Presentation (20 minutes)
The facilitator presents to participants the Legend of disability game, including its variations to enhance its accessibility. They also present the design methodology under which the game is developed, a methodology that Challedu uses for many of their games

Step 2: Discussion (20 minutes)
The facilitator then welcomes discussion on different aspects of game design, including testing.

Step 3 (optional) Playtest the game (60 minutes)
The facilitator picks some volunteers to test the game. The rest of the participants observe the players' experience.

Activity 2 Redesign Blooming Flowers

General information

Duration: 60 minutes
Nr of participants: 6-20
Objectives of the activity:

After this activity, the participants will be able to

- redesign variations of games so as to fit more audiences, embracing more accessibility types

Materials needed

- computer/internet connection
- projector
- Blooming flowers game

Detailed description of the activity

Preparation

The facilitator prints Blooming flower games

Implementation

Step 1: Presentation of the game rules (10 minutes)
The facilitator presents the concept of the game and its rules.

Step 2: Presentation of the rules of the activity (5minutes)
Then, the facilitator divides participants into smaller groups. They have to redesign the game "Blooming flowers", taking into account 2 accessibility types.

Step 3: Actual activity (40 min)
Participants redesign the game. They document their ideas in sketches, digital posters or any other type of visual documentation.

Step 4: Presentations (20 minutes)
Each team presents its idea. The facilitator notes down similarities and differences in the approaches taken.

Step 4: Evaluation (5 minutes)
Each team evaluates its concept using the checklists it has created in module 3.

Step 5: Debriefing (10 minutes)
The facilitator summarizes the ideas of each team.

Activity 3: Mini Inclusive Game Jam

General information

Duration: 60 minutes
Nr of participants: 6-20
Objectives of the activity:

The participants will

- Implement the guidelines and use the tools that were introduced in previous modules
- design game prototypes facing the real challenges of players
- combine aesthetics, accessibility, and fun in one game experience

Materials needed

- computer/internet connection
- projector
- papers/pencils/markers
- post its
- Challedu cocreation toolkit
- Accessibility guidebook

Detailed description of the activity

Preparation

The facilitator rearranges the space so that participants to be able to work together.
The facilitator can prepare challenge cards to present participants with different design prompts.
Indicative prompts could be

Implementation

Step 1: Presentation of the rules of the activity (5 minutes)
The facilitator divides participants into smaller groups (3-5 participants). Each team has to draw a challenge card.
The participants have to create a prototype of a game related to the challenge they picked.

Step 2: Game design (75 minutes)
Groups design their game. They have to provide rules, variations of the game, board, pawns, cards, or sketches of UI - if the game is digital.

Step 3 Game testing and evaluation (30minutes)
A representative of a team remains at the group's table. The rest of the members of the team move to other tables to test the game other teams created. After testing, they evaluate the game in terms of accessibility using their checklists.

Step 4: Presentation of games(30 min)
Each team presents their game concept, feedback received, and accessibility scoring. The game that received the highest score is awarded an award.

Step 5: Debriefing (10 minutes)
The facilitator points out similarities and differences of game concepts created, accessibility guidelines used and provides their own feedback on enhancing game concepts and accessibility features.

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Annexes

Icebreaker - print materials

Co-funded by
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Bingo!

Do you know anyone in the room who

Has traveled outside Europe	Speaks more than 2 languages	Doesn't dring coffee	Has performed in a play	Has siblings.
Wears glasses	Has or had a pet (dog, cat etc)	Plays a musical instrument.	Loves puzzles	Cooks amazingly.
Was born during summer	Has a tatoo	Has done scuba diving	Has run a marthon	Has worked in a cafe
Lives close to the city center	Has been to a concert this year	Is afraid of heits	Doesn't like chocolate	Wanted to be an austronaut
Has read more than 10 books this yeas	Loves the see	Hasn't got a driving liscens	Has taken a selfie with someone famous?	Enjoys dancing

Activity Mix and Match printouts

Card #	Type	Description
A1	**Visual Accessibility**	Supports players with low vision or color blindness.
A2	**Auditory Accessibility**	Ensures sound information is also conveyed visually or textually.
A3	**Motor Accessibility**	Helps players with limited movement or dexterity.
A4	**Cognitive Accessibility**	Supports players with attention, memory, or processing challenges.
A5	**Communication Accessibility**	Makes interaction and social play inclusive for all communication styles.

Card #	Barrier	Example Situation
B1	**Small text and low contrast**	Players can't read dialogue or menus clearly.
B2	**Sound-only cues**	Important signals are only heard, not seen.
B3	**Fast button combos or quick-time events**	Difficult for players with limited mobility.
B4	**Complex menus and unclear objectives**	Overwhelms players who need more guidance.
B5	**Voice-only chat**	Players who can't speak or hear are excluded.
B6	**Flashy or blinking lights**	Can trigger discomfort or seizures.
B7	**Tiny icons or cursor targets**	Hard for players using adaptive controllers.
B8	**No save checkpoints**	Frustrating for players who need more frequent breaks.
B9	**Heavy text narration**	Hard for players with dyslexia or low reading speed.
B10	**Background music masking dialogue**	Players can't distinguish spoken information.

Card #	Solution	Description
S1	**High contrast mode and zoom options**	Improves visibility for low-vision users.
S2	**Subtitles and visual cues**	Provide alternative channels to audio.
S3	**Remappable controls**	Let players change input keys or devices.
S4	**Difficulty settings and adaptive speed**	Adjusts challenge level for cognitive or motor needs.
S5	**Text-to-speech and speech-to-text chat**	Enables communication for all players.
S6	**Colorblind filters**	Makes color-based information perceivable.
S7	**Simplified interface mode**	Reduces cognitive load in menus.
S8	**Assist mode or skip option**	Helps players progress without frustration.
S9	**Vibration or haptic feedback**	Replaces or enhances audio cues.
S10	**Clear audio balance settings**	Allows independent control of dialogue, music, and effects.

Trainer Reflection Sheet – UPGAMEIN Accessibility Lesson plan

Module: _____
Trainer Name: _____
Date: _____

Reflection Point	Notes
What worked well in this session?	
What challenges did participants face (concepts, timing, tools)?	
How did participants engage with accessibility topics (attitude, empathy, creativity)?	
What adaptations or supports did you use to make the session inclusive?	
What would you change or improve next time?	
Any quotes, reactions, or key learning moments worth noting?	
Overall trainer rating of this module (1–5)	☐1 ☐2 ☐3 ☐4 ☐5