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Design Game Guide

TU WIEN

ARTEFACT-BASED COMPUTING & USER RESEARCH

Overview

This guide supports you in designing an individual Design Game tailored to the context of your project, lab, or case study. This set of cards guides you through the design process and helps you to create your Design Game by defining the characteristics of your game by elaborating contributions to the following key aspects:

- Context & Topic
- Research question
- Actors
- Framework conditions
- Narrative
- Mechanics & rules
- Materials
- Playing

For each of these categories, a set of cards including further explanations and detailed questions is provided to support and guide you while designing your game. In the blank game box, a collection of materials can be found which can be used to inspire the designing process and for playing the resulting game.

Have fun creating your own innovative Design Game for your project, lab, or case study.

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Context & Topic

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Context & Topic

This category aims to define the context and topic of a particular Design Game. The context is usually bound to the context of the project, lab or case study the Design Game is used in and can address a suitable topic for applying a Design Game.

Topics and contexts for applying a Design Game comprise areas where real actors are involved, and an understanding of their perspectives is crucial. Design Games are played by a group of real players. It gathers different stakeholders in a comfortable setting to discuss their perspectives towards a specific topic while playing the Design Game.

The characteristics of the context and topic - a subarea of a project or case study - should support playful approaches. As the Design Game is designed to be actually played and generate insights through playing, the topic should allow a playful approach.

A design game should be applied in contexts containing open issues, where the inspiration for possible solutions can be gained through the playful exchange of different perspectives.

Since a Design Game mainly produces qualitative data, it should be used for topics where such data is valuable. Contexts and topics where it is important to elaborate an understanding of the users‘ behavior and their affordances appear to be more appropriate than contexts that can be accessed by quantitative measures.

The access, exchange, and understanding of the views and perspectives of different stakeholders are core elements of Design Games. Hence the context needs to comprise various stakeholders.

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Aspects and topics for real actors

Which aspects in the project need to be discussed with different acteurs? For which topics could lively debate be fruitful?

Possibilites for playful approaches

Which topics or questions in the project can be addressed by using playful approaches? Which topics could benefit from co-creation approaches in playful, creative and casual settings?

Open issues and challenges

Which challenges and parts of the project are still open and need to resolved? Which Aspects are not yet defined (and could possibly be defined with playful measures)?

Areas for collecting qualitative data

For which areas and questions in the project collecting qualitative data appears helpful? Which areas can‘t be explored by collecting numerical data? Where is a deep understanding of social behaviour needed?

Accessing different perspectives

Which areas and questions require an active exchange of different pespectives from various stakeholders? Which topics benefit from debate? Which aspects of the project can be enriched through contributions of different views and perspectives?

SUMMARY: The goal of the Design Game

Summarize your contributions from the cards of this category to define the goal of your Design Game.

Quick check:

- ◯ Topic for real actors
- ◯ Issue is still open
- ◯ Different perspectives accessible
- ◯ Playful approach possible
- ◯ Qualitative data suitably

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Research question

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Research question

Within this category, the research question of the Design Game is defined. This question is mostly derived from research questions of the project or case study the Design Game is part of. Although the research question of the Design Game is related to overall research questions, it needs to fit the actual context of the Design Game.

First of all, it needs to be identified for which aspects of the project or case study the application of a Design Game is a promising approach and which existing research questions are addressing the context and topic the Design Game is going to be applied for.

As the Design Game is highly dependent on the input of different perspectives, this aspect needs to be covered by the research question respectively. The most relevant stakeholders should be addressed by the research question of the Design Game.

In addition to relevant aspects of the project and the stakeholders, a particular topic should be addressed within the research question of the Design Game. This topic narrows down the actual goal of the Design Game and provides information about specific issues to be discussed in the game.

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Aspects of the project

Which part or aspect of the project will be addressed by the Design Game? Which research questions can be answered by applying a Design Game? The achievement of which tasks or work packages can be supported through a Design Game?

Valuable perspectives

Which stakeholders are part of the research question for the design game? Which particular perspectives should be addressed by the design game?

Topic to debate

What has to be discussed in the game? Which problem is central for the debate in the Design Game?

SUMMARY: The research question for the Design Game

Summarize your contributions from the cards of this category to define the research question of your Design Game.

Quick check:

- ◯ Particular aspect of the project
- ◯ Valuable perspectives
- ◯ Topic to debate in the game

Research question

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Actors

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Actors

This category defines all actors, roles, and people somehow involved in the Design Game.

The most important actors are the stakeholders addressed by the research question. Stakeholders might not be equivalent to a person who is actually playing the game. Furthermore, stakeholders could comprise companies, organizations, governments, etc. It is crucial to identify the stakeholders addressed by the game and to describe the perspectives they are supposed to contribute.

Players are real people who are actually playing one or more game rounds. Players are representatives of stakeholders or user groups. Depending on the game‘s goal, players can contribute various perspectives (government, user, manager, etc.) or be part of one specific group (e.g., different users).

Additional actors might be needed to successfully play a Design Game, such as facilitators, moderators, or people to document the play. Identify these roles explicitly and describe the responsibilities, duties, and activities of these roles.

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Parties concerned

Who is affected by the research question? Which people or stakeholders are candidates for playing the Design Game?

Players

Who is supposed to play the game? Which actors and roles are part of the game? Are the players participating in their real-life role or do they represent a fictional character?

Additional roles

Which additional roles are needed for a succesful play? Is a moderator or facilitator needed? Is someone needed for documenting the gameplay?

SUMMARY: The role and player in your Design Game

Summarize your contributions from the cards of this category to define the roles and players in your Design Game.

Quick check:

- ◯ Affected stakeholders
- ◯ Roles and Players in the game
- ◯ Additional roles

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Framework conditions

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Framework conditions

This category describes a specific Design Game setting and identifies how the gaming situation is characterized.

A relevant framework condition is the number of people involved. Depending on the goal, the research question, and the context of the Design Game, it has to be defined if there is a minimum number of players required and the maximum of active players.

The Design Game needs to have an estimated gaming duration. Thereby researchers can assess the amount of data that is supposed to be collected within one game round. The players are able to schedule their participation when there is an estimated period of time in which they have to be present.

Another relevant aspect is the location where the game is played. Depending on the type of the game, the number of involved people, and the context of the game, an appropriate location needs to be specified that fulfills the requirements of the Design Game in terms of it‘s size, available equipment (e.g., chairs, tables, etc.), gaming environment (indoors or outdoors), etc.

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Number of active participants

How many active players will be part of the game? Is there a minimum or maximum number of players? How many other persons are involved at which stages - preperation, gameplay, analysis?

Duration of gameplay

How long is the duration of one game? Are multiple rounds of the game possible? How much time needs to be planned by the participants? Are consecutive games possible - in terms of preperation, documentation, material, etc.?

Gaming location

Where is the Design Game supposed to be played? Which restrictions are given by environmental factors? How much space and equipment, such as furnishing is needed for comfortable playing?

SUMMARY: Gaming environment

Summarize your contributions from the cards of this category to get an detailed description of the framework conditions in your gaming environment.

Quick check:

- ◯ Number of participants
- ◯ Game duration
- ◯ Locations for playing

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Narrative

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Narrative

The narrative describes the story of the game and the paths that can be taken during playing. It frames the debate, discussion, and possible actions for the players in the game.

At the beginning of the game, there needs to be a starting point that is very clear for all players. The starting point is preset and marks the start of a journey through the game where the players influence the outcome.

To be able to influence the outcome, the players are confronted with specific circumstances or conditions where they have the chance to make a decision and form the journey of the game according to their perspective. These conditions and circumstances are part of the narrative and need to be elaborated.

The journey of the story is formed by the overall narrative, the occurring conditions, and actions to be set by the players. These elements need to be designed in a way that they are open enough to allow the player to move and be creative, but they also need to provide a certain frame to ensure the goal of the game can be reached.

The scope of possible decisions that can be made by the players is a core element of the narrative. Players need to be able to express their perspectives regarding their roles but also to provide new, innovative, creative decisions and influence the journey through the game.

Since an essential element of Designs Games is the exchange of perspectives, players need to interact with each other, discuss and debate. The narrative should support - or even force - the interaction between players.

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The start

What is the starting point of the Design Game in terms of the narrative? Are there any preconditions? How do the players start into to the story of the game?

Situations and circumstances

With which situations are the players confronted within the game? Which circumstances can possibly occur and how do players act in the game?

The journey through a story

What is the story of the Design Game and how does the story unfold while playing? Which challenges can occur and have to be managed by the players?

Decision making

How do players make decision? Which possibilities and options do players have to proceed the game? How can players react to given or appearing conditions? How do the possible steps of the players look like?

Interaction between players

How do players interact with each other? What is the relation between the roles in the game? How does the narrative establish and support referencing and turn taking between the players?

SUMMARY: The story for the Design Game

Summarize your contributions from the cards of this category to get a detailed description of the narrative of your Design Game.

Quick check:

- ◯ Starting point
- ◯ Story of the game
- ◯ Interactions between players
- ◯ Situations in the game
- ◯ In-game decision making

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Mechanics and rules

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Mechanics and rules

The mechanics and rules of a Design Game represent the formalization of the narrative. The entire story, conditions, and possible actions are set to a formal framework that builds the rules of the game.

First, the process of the game needs to be defined from the starting point to the end. It needs to be specified who starts, how a player moves on, how the turn-taking works, etc.

Next, it needs to be defined how specific situations are triggered. The trigger can be provoked by players, by a reaction to a specific action, or arbitrarily (e.g., throwing a dice), etc. The mechanics of the design game describe which aspects have to coincide that a certain condition or situation occurs.

Once a particular condition occurs, the mechanics define the possibilities of the players to make decisions and set specific actions. Here, the formalization of the rules needs to be done in a way that supports the player in making clear decisions but also enables the player to be creative. The player has to know the options but not be put in a too-tight corset. Once an action is set by a player, the rules need to give an orientation on how the game continues.

Since a game can not run infinitely, conditions need to be defined that end the game. This can be done by generating a winner, by course of time, by reaching a certain number of rounds, by the decision of the moderator, etc.

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Game process

Whats the formal process of the game? Which mechanics and rules are needed to formalize the process?

Triggering situations

How are specific situations in the Design Game triggered? What‘s the cause of a spedific situation or state in the game?

Making decisions

How are decisions made during playing? What is needed to be able to make decisions? What actions follow when a decision is made by a player?

Actions set by players

Which options do players have in the game? Which exact actions can be set by players and what follows an action?

Game over

How does the Design Game end? Does the game need to have a winner? Which condition or situation must be reached to declare the end of the game? When are the goals of the game accomplished?

SUMMARY: Machanics and ruleset of the Design Game

Summarize your contributions from the cards of this category to define mechanics of the game and elaborate a formalized ruleset.

Quick check:

- ◯ Formal process of game
- ◯ Decision making formalities
- ◯ End of the game
- ◯ Triggers for occuring situations
- ◯ Actions set by players

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Materials

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Materials

This category encompasses the collection of the materials needed for playing the Design Game. Some materials are already provided in the game box, and a subset of these materials can be chosen for your Design Game. But there is also the possibility to adapt or complement these materials or design new ones that fulfill the needs of the Design Game.

To be able to choose appropriate materials, the type of the game needs to be defined. A Design Game can follow the principles of a specific game type (e.g., board game, card game, role play) or include elements of various kinds.

In the context of the type, the materials to represent the players (tokens, cards, etc.) and the materials to move (e.g., throwing a dice) need to be defined. Also, materials for representing actions can be chosen or designed, and supporting materials to represent options and conditions (unique cards, tokens, etc.).

To frame the gaming situation, the Design Game needs to support a common ground for players where the game actually takes place, and the players gather. This can be a set of cards and a table or a gameboard to gather around.

For designing individual materials, software for graphic design such as Adobe Illustrator is recommended to be used. The designs can be printed on labels and be pasted on blank material such as cards, dices, or tokens. 3D-printing technology can be used to realize individual playing pieces. With the open-source Tool „PosteRazor“ (http://posterazor.sourceforge.net), foldable gameboards can be created.

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Type of game

Which type of game is appropriate (card game, board game, role play, etc.)? Is a mixture of different types a good approach?

Representation of the players

How are the player represented? Are they represented by a general playing piece, a special character (e.g. board games) or by themselves (e.g. card games)? Do players need extra equipment for their representation (e.g. role playing)?

Gaming moves

How are gaming moves triggered and decided (throw a dice, draw cards, turning a spinner, etc.)? Which materials are needed to support moving through the game?

Representation of actions

How are actions and options represented in the game (e.g. drawing cards)? Which materials are needed to represent conditions and action in the game?

Common ground for playing

What‘s the common ground or frame for playing? Does the Design needs a game board or other artifacts to establish a common playing environment?

SUMMARY: A List of materials

Summarize your contributions from the cards of this category to set up a detailed list and description of materials needed for your Design Game?

Quick check:

- ◯ Gametype
- ◯ Moving through the game
- ◯ Common playground
- ◯ Playing pieces to represent players
- ◯ Expressing actions

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Playing

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Playing

This category focuses on playing the game. It describe needs to be set up, what needs to be considered throughout and after playing the Design Game and how the game is documented.

Before the players begin to play the game needs to be prepared. Describe which elements of the game need to be prepared to get to the starting point of the game and ebale the players to play (e.g., handing out playing pieces, shuffling cards). Give a description of the start setting and provide a list of materials the players and facilitators need to start the game.

Since the goal of a Design Game is to get insights into the perspective of various stakeholders, the playing rounds need to be documented. Specify how the game is documented and which additional staff is needed to support proper documentation. Some materials of the game can be used for documentation to (e.g. cards where players take notes on) and need to be preserved after playing. Identify this material and make sure to replace it after the game to be able to start the next round.

Identify how the game terminates and describe the situations that may occur to end the game. Design Games can terminated following the mechanics and rules of the game or by other unexpected circumstances (e.g. players are refusing to play or not interacting anymore).

To be able to improve the Design Game players should be asked for feedback. Define a concept for getting feedback and elaborate which feedback is valuable and when the players are asked for (e.g., at the end of the game).

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Preperation

What needs to be prepared before the game? Is there any material which needs to be refilled, adapted or changed? How are the players invited? What needs to be prepared for documenting the gameplay?

Starting the game

What‘s the setting for starting the game? What do players and facilitators need to be able to start playing?

Documentation

How is the game documented? Which documentation material is needed? What form of documentation is appropriate for your Design Game (e.g. filming, photographing, self documenting gaming materials, etc.)?

Preserving valuable data

Which elements of the Design Game need to be preserved as valuable data for further analysis? Is there any valuable playing material which was used by the players (e.g. for note taking, etc.)?

Termination of the game

When and how does the game (or one round) end? Under which cirdumstances the game has to be ended by the facilitators? What are the risks for stopping the game earlier than expected?

Feedback about the game

How is feedback regarding the Design Game collected? How and when are the players asked for their feedback?

Replacement of used materials

Which materials need to be replaced for playing a new round of the game? Which materials were used by the players and need to be replaced? Are there any damaged materials?

SUMMARY: The process of playing the Design Game

Summarize your contributions from the cards of this category to define the process of playing and identify what is needed to set up and play a succesful round of your Design Game.

Quick check:

- ◯ Items to prepare
- ◯ Strategy for docmentation
- ◯ Reasons for termination
- ◯ Replacement of used materials
- ◯ Start setting
- ◯ Method for getting feedback
- ◯ Data to be preserved