



t-crepe



# Play & Design ChoiCo Games in T-CREPE



HELLENIC REPUBLIC  
National and Kapodistrian  
University of Athens  
— EST. 1837 —



Christina Gkreka,  
Dr Marianthi Grizioti,  
Prof. Chronis Kynigos

1. Introduction to ChoiCo
2. Games & Examples
3. Modifying a ChoiCo game
4. Creating a new ChoiCo game



# Introduction to ChoiCo games

NKUA - ETL

# 1

# ChoiCo = Choices with Consequences

## Choice-driven simulation games

Resemble Simulation-Tycoon Games (SimCity, Zoo Tycoon, Tropico etc)

The screenshot displays a simulation game interface. At the top, a status bar shows various metrics: Energy (45), Money (440), Hygiene (4), Fun (95), Social (60), Health (3), and Points Visited (1). Below this is a 3D city map with various buildings and locations labeled, including Information Office, Football Field, Club, Music Theater, Cinema, Doctor, Fun Park, Train Station, Cafe, Restaurant, Bakery, Chemical Laboratory, and Carpentry. On the right side, there is a 'Point Information' table showing the consequences of different choices.

Point Information	
Description	Restaurant
Energy	-5
Money	-60
Hygiene	1
Fun	45
Social	10
Health	1

Game fields

Choices with positive and negative consequences


# ChoiCo Gameplay

- Informed **Decision Making**
- Game and System **Balance**
- **Prediction** of consequences
- **Question** the game values and **modify** them

Examples:

- Ecological footprint & Production / climate change
- Bioethics
- Design of textile solutions

# The ChoiCo games – choice-driven simulation games

- 
1. **Don't** have a **single** and **clear** solution
  2. With every **choice/action** you **win** something **and lose** something
  3. **Decide** wisely and **balance** the **consequences** of your actions
  4. Every choice matters – the combination of choices matters as well



# Examples of ChoiCo games in the planet

NKUA - ETL

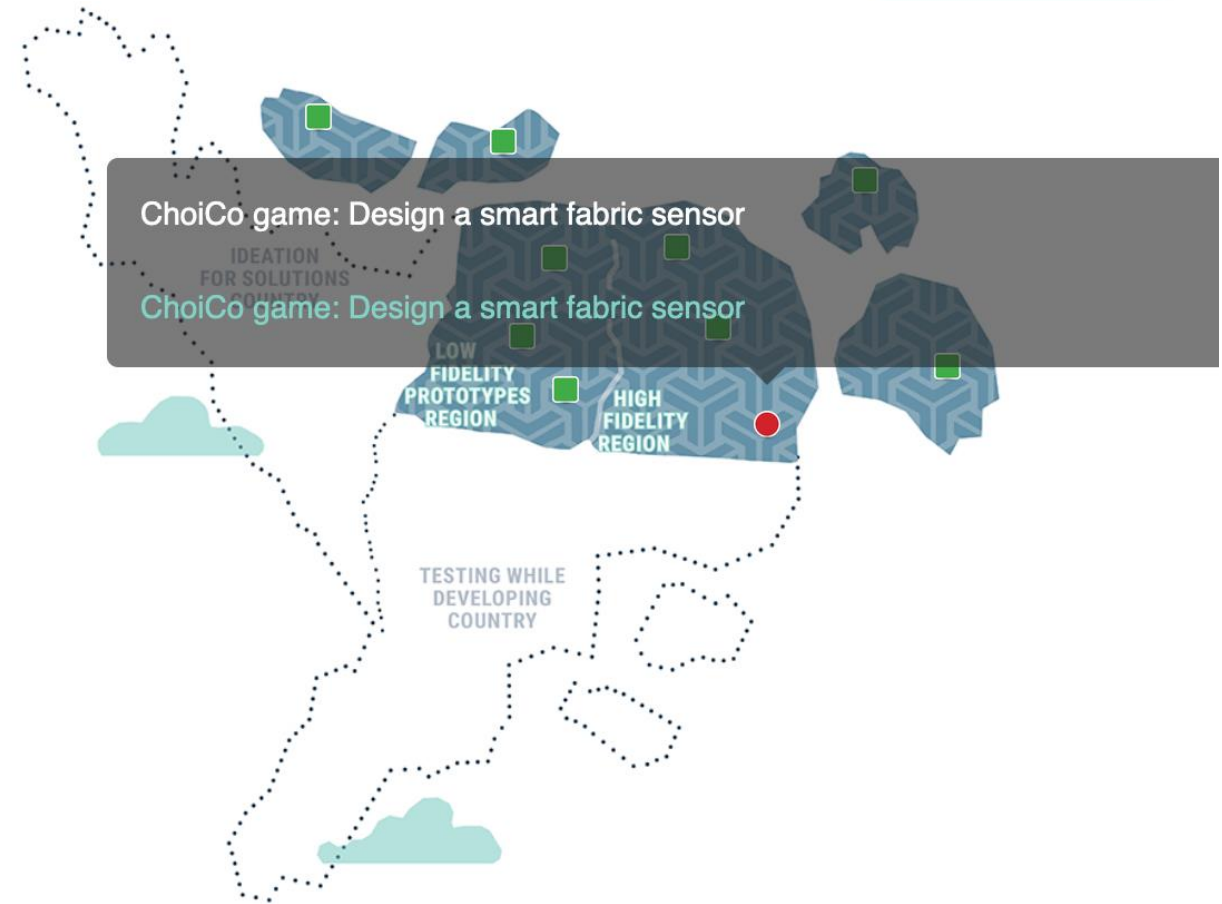
# 2

# ChoiCo games in the planet platform

PROTOTYPE  
COUNTRY



**Cities:** the “tools” that you can use to understand concepts, e.g., empathy, sustainability, entrepreneurship. You may find links to external sources, but, most importantly, our ChoiCo Games that we hope to make your journey more fun!





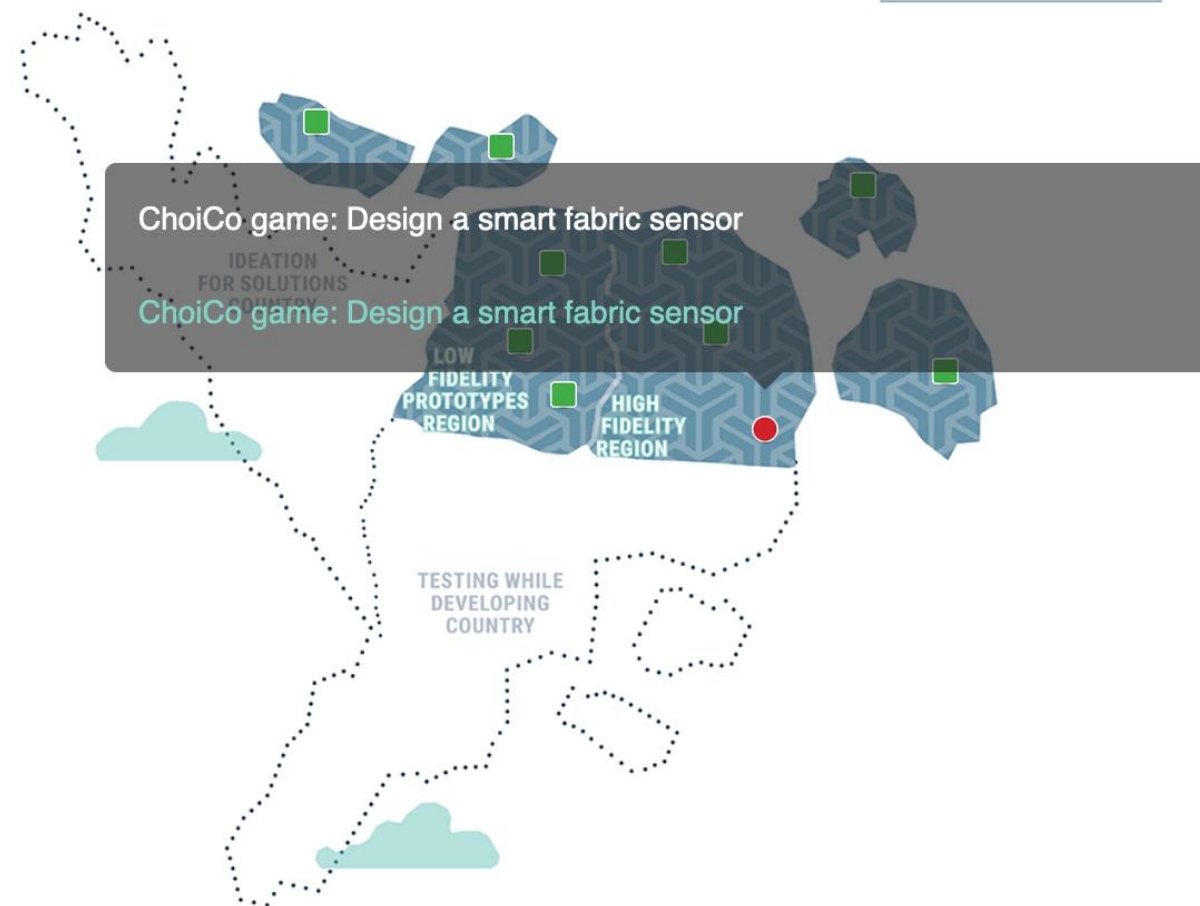
# ChoiCo games in the planet platform

PROTOTYPE  
COUNTRY



E.g. A ChoiCo game to :

- Explore tools for empathizing
- Compare different material
- Explore different user profiles
- Discover possible uses of a product
- Explore the consequences to the environment
- Come up with sustainable/balanced solutions



# Let's Play Together!!

- 
1. <http://etl.ppp.uoa.gr/choico/?approachingEmpathy>
  2. <http://cocreationplanet.eu/>

# Download your Score!!

Remember....

After the game ends

to download your score



Game Progress

Current Game Values

Allocated\_time = 6 | Effort = -3 | Money = 12 | Immersion = 55 |

Choices History

Choice 8: Observe user at countryside

Game Values: Allocated\_time = 6 | Effort = -3 | Money = 12 | Immersion = 55 |

Choice 7: Survey at marketplace

Game Values: Allocated\_time = 12 | Effort = 17 | Money = 17 | Immersion = 50 |

Choice 6: Survey at marketplace

Game Values: Allocated\_time = 10 | Effort = 22 | Money = 12 | Immersion = 55 |

Choice 5: Hospital-day in life

Game Values: Allocated\_time = 8 | Effort = 27 | Money = 7 | Immersion = 60 |

Choice 4: Hospital-day in life

Game Values: Allocated\_time = 16 | Effort = 42 | Money = 7 | Immersion = 40 |

Download Score



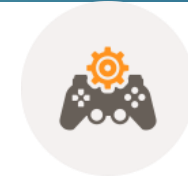
# Modify a ChoiCo game

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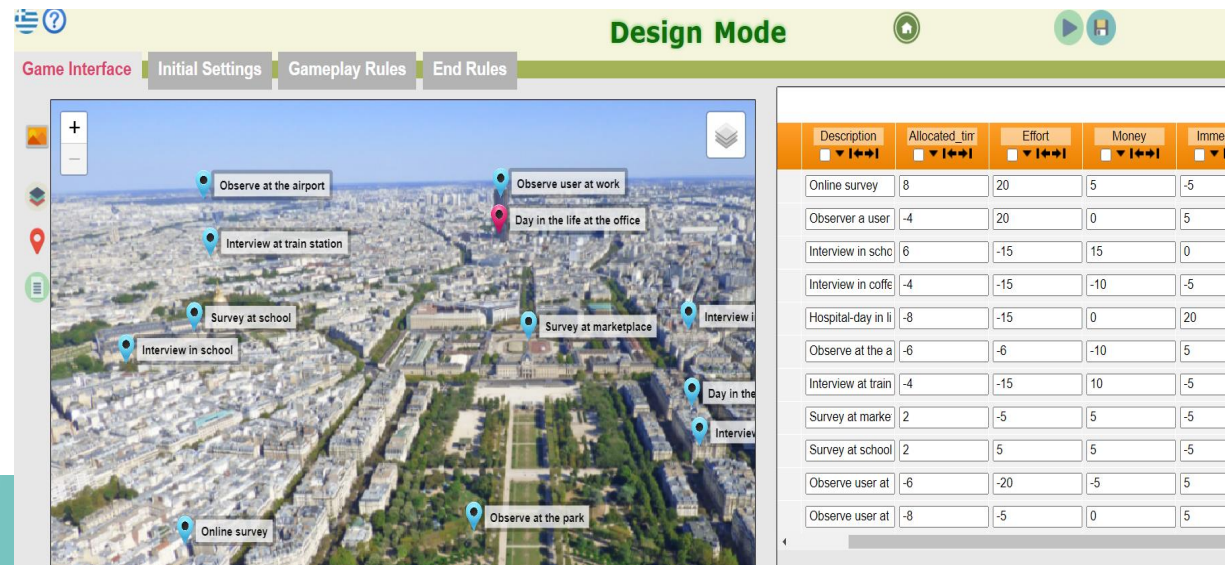
# 3

# How to...modify a ChoiCo game

1. After you open the game, click the “Edit Game” icon
2. The “Design Mode” will open, consisting of 4 tabs

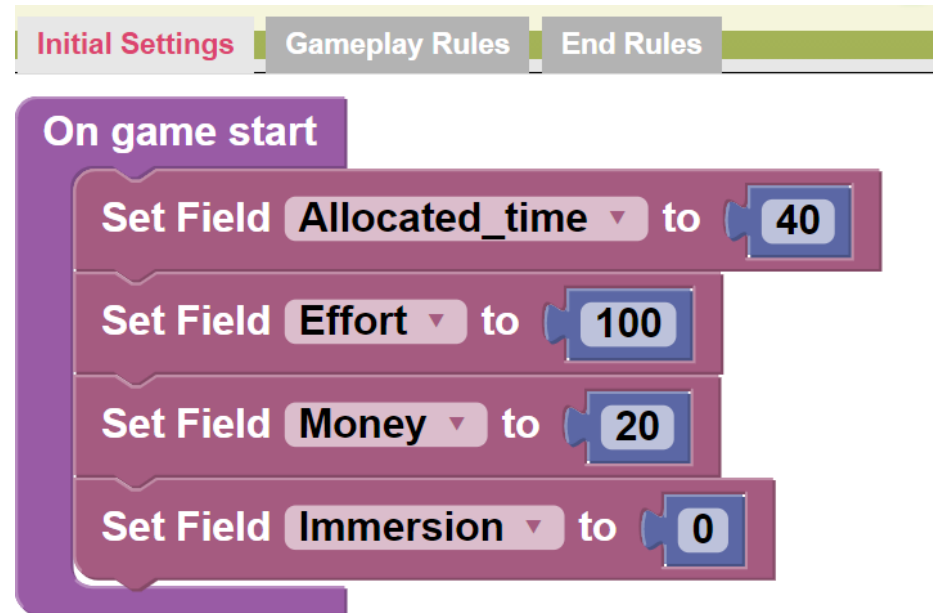


- **Game interface:**
  - **Modify** the game scene with the map GIS editor (e.g background, choices, layers etc).
  - Modify the game **choices**, **consequences** and **fields** with the database interface



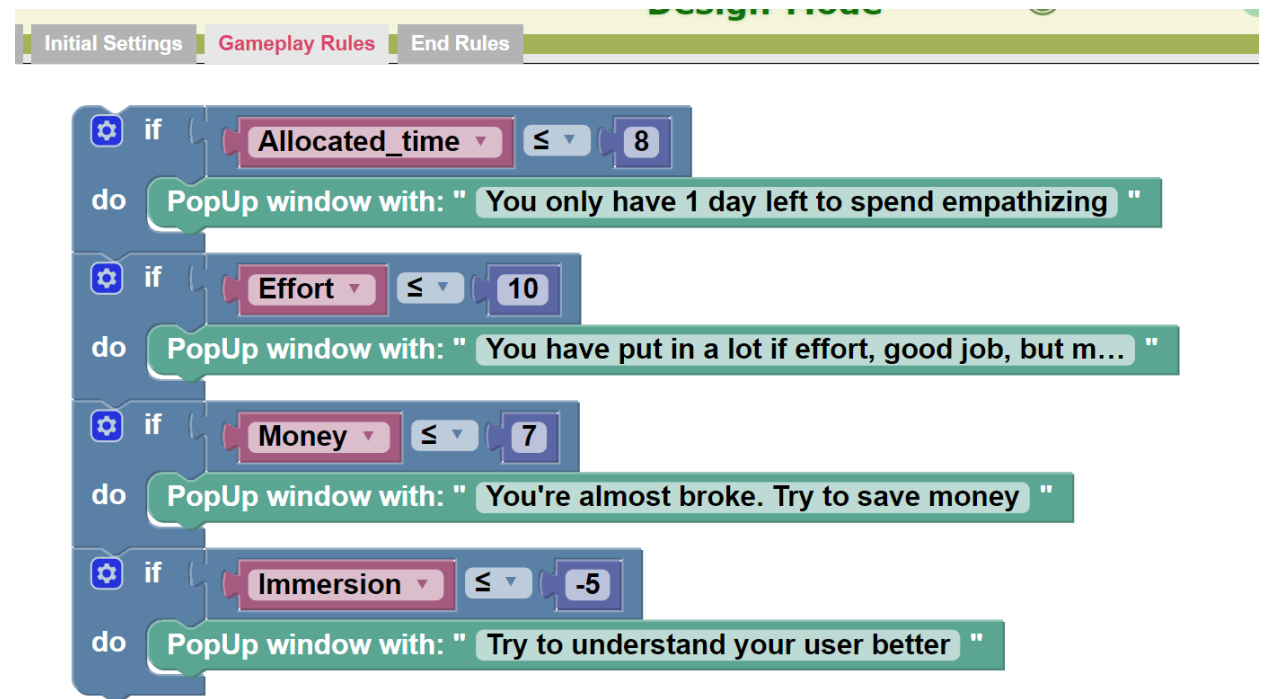
# How to...modify a ChoiCo game

- Initial values:
  - Set the **initial values** of game fields with block-based programming



# How to...modify a ChoiCo game

- Gameplay Rules
  - Set **feedback messages** or **game actions** that will occur every time the player selects a choice (e.g. hide a point, show a warning message) with block-based programming



# How to...modify a ChoiCo game

- End rules
  - Set up the conditions under which the game ends (the red lines) with block-based programming

Settings

Gameplay Rules

End Rules

if

Immersion

≤

-20

do

PopUp window with: " You didn't achieve high immersion! Keep explorin... "

Game Over

if

Money

≤

0

do

if

Immersion

>

60

and

moves counter

≥

15

do

PopUp window with: " You ran out of Money having achieved good levels... "

if

Immersion

>

50

and

moves counter

≥

15

do

PopUp window with: " You ran out of Money, but you have achieved medi... "

if

Immersion

<

20

and

moves counter

≥

15

do

PopUp window with: " You ran out of Money, without having achieved an... "

if

moves counter

<

15

do

PopUp window with: " You ran out of Money, without having achieved an... "

Game Over





# Design a new ChoiCo game

NKUA - ETL

# 4

# ChoiCo Design Mode

Create **rapid prototypes** (games) for simulating complex, real-world situations/systems/phenomena

Climate change

Uses of Social media

Balanced diet

Sustainable  
product design


Covid-19

Urban pollution

Consumption habits

Biodiversity

# Why to Create a ChoiCo game for your project?

- 
1. To empathize – discover a new problem with your team
  2. To discover user needs/preferences (give them the game and see their choices)
  3. To simulate and explore different solutions-impacts
  4. To create a rapid model of your product and test it with users
  5. To design/simulate sustainability plans for your product
  6. To simulate different uses of your product
  7. ...??

# The covid game –discover/empathize

1. What are the people habits and needs during the pandemic?
2. What different players (users) may need?

<http://etl.ppp.uoa.gr/choico/?covidgame>

Game Values

Covid_Risk ↓	Physique ↑	Fun ↑	Social ↓	Money ↓	No of Choices
-14	110	60	25	40	1

+

−

Point Information

Description	Running
Covid_Risk	Random number from: -15 to: -20
Physique	60
Fun	10
Social	-25
Money	-10

Select Point

# The Smart Jacket game – test/present/Deliver

1. How my product will be used?
2. Does it cover user needs (testing/simulating)?

<http://etl.ppp.uoa.gr/choico/?smartJacket>

Product_Usefulness ↓	Comfort ↑	Outfit_Acceptance ↑	No of Choices
5	10	45	1


  


Point Information	
Description	Cinema
Product_Usefulness	-3
Comfort	2
Outfit_Acceptance	5


Select Point





# ChoiCo design - Main Concepts

- 
1. **Game Setting:** The setting (background) that the game takes place
  2. **Choices:** The choices the player can make many times (e.g. places to go, material to use/collect, actions to do etc)
  3. **Game fields:** Parameters of the game that are affected by all the choices (e.g. Money, Health, Danger, Pollution, Happiness, Population)
  4. **Consequences:** How much (numerically) each choice affects each field




# ChoiCo design - Main Tools

- 
1. **Game Interface:** A map-like scene with pinpoints
  2. **Database:** Choices->rows, Fields->columns, Consequences->cells
  3. **Gameplay rules:** What happens when the player makes a choice
  4. **Ending conditions:** When the game ends and what happens then

# Game Interface & Data



Design Mode











Game Interface

Initial Settings

Gameplay Rules

End Rules





Observe at the airport

Interview at train station

Survey at school

Interview in school

Online survey

Observe user at work

Day in the life at the office

Survey at marketplace

Interview in school

Day in the life at the office

Interview in school

Observe at the park





















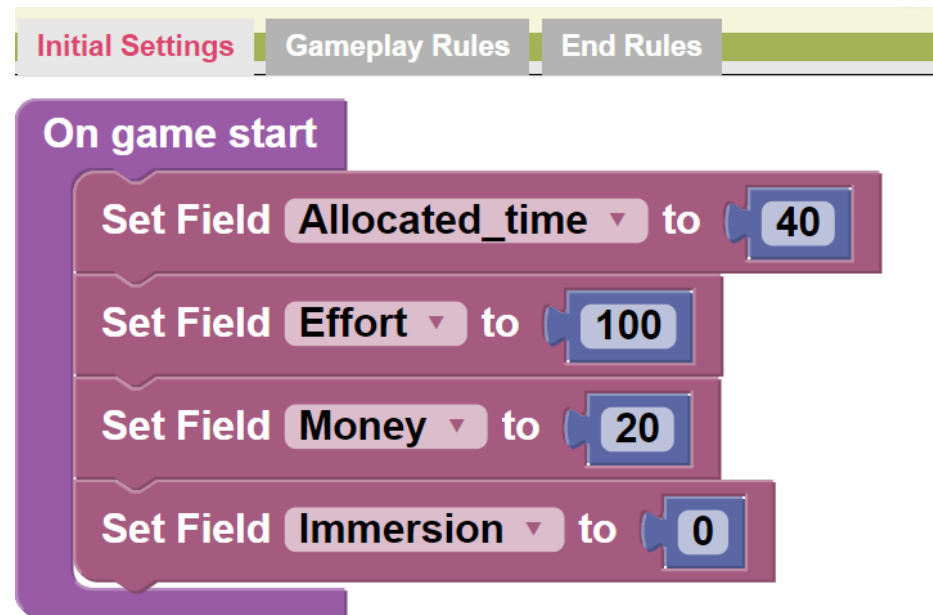
Description	Allocated_time	Effort	Money	Immersion
   	   	   	   	   
Online survey	8	20	5	-5
Observe a user	-4	20	0	5
Interview in school	6	-15	15	0
Interview in coffee	-4	-15	-10	-5
Hospital-day in li	-8	-15	0	20
Observe at the a	-6	-6	-10	5
Interview at train	-4	-15	10	-5
Survey at marketplace	2	-5	5	-5
Survey at school	2	5	5	-5
Observe user at	-6	-20	-5	5
Observe user at	-8	-5	0	5

Image from



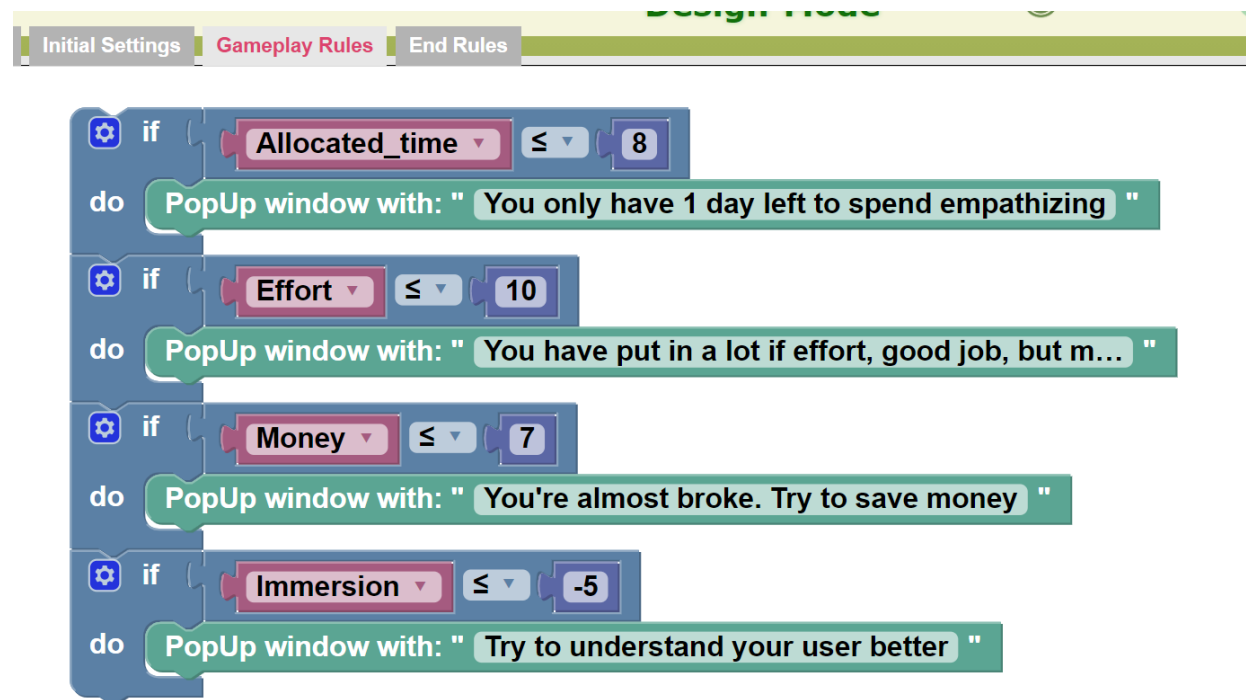
# Initial values

- Initial values:
  - Set the **initial values** of game fields with block-based programming



# Gameplay Rules

- Set **feedback messages** or **game actions** that will occur every time the player selects a choice (e.g. hide a point, show a warning message) with block-based programming



# Ending conditions

- Ending conditions
  - Set up the conditions under which the game ends (the red lines) with block-based programming

Settings

Gameplay Rules

End Rules

if

Immersion ≤ -20

do

PopUp window with: " You didn't achieve high immersion! Keep explorin... "

Game Over

if

Money ≤ 0

do

if

Immersion > 60 and moves counter ≥ 15

do

PopUp window with: " You ran out of Money having achieved good levels... "

if

Immersion > 50 and moves counter ≥ 15

do

PopUp window with: " You ran out of Money, but you have achieved medi... "

if

Immersion < 20 and moves counter ≥ 15

do

PopUp window with: " You ran out of Money, without having achieved an... "

if

moves counter < 15

do

PopUp window with: " You ran out of Money, without having achieved an... "

Game Over

The “Game Plan Template”  
is a document to help you  
design a good and  
balanced ChoiCo game



## “Impact of Empathy” Game Description

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### Game Description

#### 1. Game identity

- Title:** The impact of empathy
- Context:** Education
- Concept(s):** Discover -Empathize (diverge)
- Outline:**


There are different tools and methods to empathize with users. According to the user you want to target, some approaches are easier/better for certain groups as for others. Each tool/approach has its advantages and disadvantages. Try to empathize as good as possible with your the different audiences to understand the problem from their point of view. Make sure you don't neglect a certain audience!

#### 2. The “Game Player” role

- State **the role of the Game Player** (e.g., citizen, mayor, etc.).
- State the aim of that player (what the player needs to do to stay in the game).

The player is a student who has to understand his/her target audience by trying out different empathy-tools. She/ He has to think about which tools might be more convenient for each user.

# Tips for creating good ChoiCo games

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1. Think of a **complex, controversial** or not clear issue
  2. There should be **no choice with only positive or only negative values**
  3. The point of the game is for the player **to stay on the game as long as possible**. The player staying on the longest is the 'best' player
  4. The available choices and fields **are related to a 'concept'**/socio-scientific issue for which **it makes sense** for the player **to try to keep balanced** for as long as possible and hopefully indefinitely