Ideation and Design of Learning Games

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Dad says we get to ____ in a plane today!

flew  flown  fly
Workshop Outline

- Introduction: 10 min
- Game design session: 90 min
- Activity 1: 10 min + 5 min
- Activity 2: 30 min + 5 min
- Activity 3: 10 min
- Activity 4 & 5: 30 min (in parallel)
- Presentation: 10 min
- Questionnaire: 10 min
Game-Based Learning Concept

Activities for Ideation and Design of Learning Games

- Activity 1: Idea generation (generate initial ideas)
- Activity 2: Idea development (expand the idea)
- Activity 3: Idea refinement (reflect on the idea)
- Activity 4: Idea illustration (visualize the idea)
- Activity 5: Idea documentation (write down final state of the idea)
Toolkit

- Board
- Cards
- Idea Sheets
- Log Sheet
Types of Cards

**Learning**
The specific area focused in an educational game to promote and facilitate learning.

**Triggers**
Different hints and guides to help you trigger the ideas you can come up with.

**Custom**
If you have other ideas you can use this card.

**Reflection**
Analyze the relations between different elements to reflect on the design choices.

**Learning**
Decide the learning domain for the game

**Climate Change**
Use trigger or custom card(s) for learning

**Custom Ideas**
Add your ideas here.

**Reflection**
Does usability (interface, learnability etc.) of this game cater the needs of the specified users?

**Reflection**
Reflect on design choices made for usability aid user T-cards
Types of Cards

LEARNING OBJECTIVES
Goals and purpose of educational games in terms of knowledge and skills it intends to transfer to its users.

TRIGGERS
Different hints and guides to help you trigger the ideas you can come up with.

What are the learning objective(s) for the game?
Use trigger or custom card(s) for learning objective.

Remember
How to play?

Question/Task

Learning
The specific area focused in an educational game to promote and facilitate learning.

Learning
Decide the learning domain for the game
Use trigger or custom card(s) for learning

Game Design Ideas

Triggers
Different hints and guides to help you trigger the ideas you can come up with.

Math
123456789

Custom Ideas
If you have other ideas you can use this card.

Programming
Card Log Sheet

- Use log sheet for activity 1-3.
- Log Primary and Reflection Card names and ID in the same order that you use them.
- If you use multiple cards simultaneously give them same order.

Only for Primary and Reflection Cards
Activity 1: Generate a Game Idea (Use only keywords)

- Work with primary (D-Cards), trigger and custom cards.
- Log the primary cards on the log sheet.
- Use at least 4 cards.
- There is no right or wrong order of using cards.
- Each primary card has multiple trigger cards with same name as the primary card.
- Use idea generation sheet.
LEAGUE

LEARNING
The specific area focused in an educational game to promote and facilitate learning.

CUSTOM
If you have other ideas you can use this card.

TRIGGERS
Different hints and guides to help you trigger ideas you can comp up with.

These cards contain a task/question the team should discuss to create the game concept.
These are blank cards to write your custom design ideas.
These cards contain design ideas for each task/question to trigger your thinking process.

P
F-Cards
These cards contain a task/question the team should discuss to expand the game concept.
C
C-Cards
These are blank cards to write your custom design ideas.
T
F-Cards
These cards contain design ideas for each task/question to Trigger your thinking process.

Playbook

1. Create a Game Idea
Generate an initial game concept using the cards in this section (Use at least 4 cards)

1. Select a Primary Dimension card from the left deck. It contains a task or question to discuss with your team to help create a game idea.
2. Decide on an idea using cards from the two decks to the right. Write down your own idea on a Custom card or choose a Trigger Dimension card to help define your idea. Keep the idea short using only 1 or 2 keywords.
3. Place the selected Trigger and/or Custom card(s) for chosen design idea on the Idea Generation Sheet.
4. Repeat with other Primary Dimension cards until initial idea is created.

2. Expand the Game Idea
Develop the initial game concept further by building on the ideas from activity 1 using the cards in this section

1. Select a Primary Factor card from the left deck. It contains a task or question to discuss with your team to help expand the game idea.
2. Expand the game idea using cards from the two decks on the right. Write down your own idea on a Custom card or choose a Trigger Factor card to help expand your idea. Elaborate the ideas with discussion & use sentences.
3. Place the selected Trigger and/or Custom card(s) for chosen design idea on the Idea Development Sheet.
4. Repeat with other Primary Factor cards until your game idea is fully developed.
1. Select a Primary Dimension card. Discuss the task or question it contains with your team to generate a game idea.
2. Write your own idea on a Custom card or choose a Trigger Dimension card to help define your idea.
3. Place the selected Trigger and/or Custom card(s) for chosen design idea on the Idea Generation Sheet.
4. Repeat with other Primary Dimension cards until initial idea is created.
Activity 2: Expand the Game Idea

• Develop the initial game concept further by building on the ideas from Activity 1
• Use primary (F-Cards), trigger and custom cards
• Log the primary cards in the log sheet
• Use idea development sheet
Steps

1. Select a Primary Factor card. Discuss its task or question as a team to expand the game idea.

2. Write your idea on a Custom card or choose a Trigger Factor card.

3. Place the Trigger or Custom card on the Idea Development sheet.

4. Repeat with other Primary Factor cards until your game idea is fully developed.
Activity 3: Reflect on Game Idea

• Proof the game ideas by reflecting on the design choices made. This will uncover the problematic decisions.
• Work with Reflection (R-Cards), trigger and custom cards
• Log the reflection cards you use in the log sheet.
• Use idea reflection sheet.
Steps

1. Select a Reflection card from the deck to the left. It contains a question to stimulate reflection on your design choices.

2. Discuss the design choices in relation to the question on the Reflection card. If a previous design choice needs improvement, reject it and substitute with a new one. Make note on the log sheet.

3. Place the rejected Trigger or Custom card and its alternate card on the Idea Refinement sheet.

4. Repeat with other Reflection cards until game idea is refined.
Activity 4: Visualize the Game Idea

• Plan the overall flow of your game, from the moment it's launched to finally quitting the game.
• Draw the flow of your game on the Idea Illustration Sheet.
Activity 5: Document the Game Idea

• Document the final state of the idea.
• Use Idea Documentation sheet.
Activity 5: Idea Documentation

Game Title

Learning Overview (Objectives, strategy, content, outcome)

Game Overview (Goals & rules, narrative, mechanics, resources, aesthetics, challenges & levels)

Target Users (Demographics, cognitive and/or psychological needs)

Environment (Technology and context of use)

Look and Feel (Interface, learnability)

Affective Reactions (Game elements that induce engagement, enjoyment, motivation or flow)