

Game Design / Iterative Process 209

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3-phase Brainstorming

Genre: Cozy Game

Learning goals: Quantum concepts (see handout)

Overall cozy game elements:

Part of premise: You have a farm or other business

Constraints:

- Limited money

- Limited actions per day

Choices:

- Buy and/or Gather Supplies

- Create & Sell product

- Save up for upgrades

- Go on “quests” or satisfy requests of NPCs

- Make food to allow more actions

3-phase Brainstorming

Phase 1: Premise and Storyline

Phase 2: Premise-driven Game Mechanics

**Phase 3: Learning-driven Game Mechanics + Storyline
integration**

Today:

Practice phase 1 on a cozy game

Perform phase of your choice on your own game

For practice: Form 3 groups

Expansion Phase

Put any words related to a premise for a cozy game in bubbles coming out from a single bubble, “Cozy Game”

Take a picture and upload to Gradescope

Collection Phase

Make a set of cards containing your brainstorm.

Front side: One term from your brainstorm

Collision Phase

In breakout group:

Shuffle your cards

**Pairs of cards - brainstorm three premises based on the pair
(do this twice)**

Enter into Gradescope

As a whole class:

Hand cards to me

Shuffle all cards

**Pairs of cards - brainstorm three premises based on the pair
(do this twice)**

Rating Phase

Vote for your top two ideas

Write down what you like about each top idea

Write down something about a different idea that you liked that your top idea is lacking

Narrow down to only two ideas based on group votes.

Discussion Phase

Share with your group what you liked and what was lacking about the two ideas that won the voting.

Collaboratively improve each of the two ideas.

Next Time

Everyone writes their ideas in a shared document, copies over the Gradescope.

Only two premise ideas per pair of cards

No time for the whole class version

Rating - read each others' instead of reading the out one at a time

Brainstorming Reflection

Very effective making it creative

Having to come up with three distinct premises - the same start can go very different ways

Listening to other premises can inform your own premises

Hard to pick a top two - look at smaller groups and pick what you like better rather than looking at them all

Key elements to brainstorming: Creativity, Time, Analysis

Crazy idea time

Slightly fleshing out crazy ideas

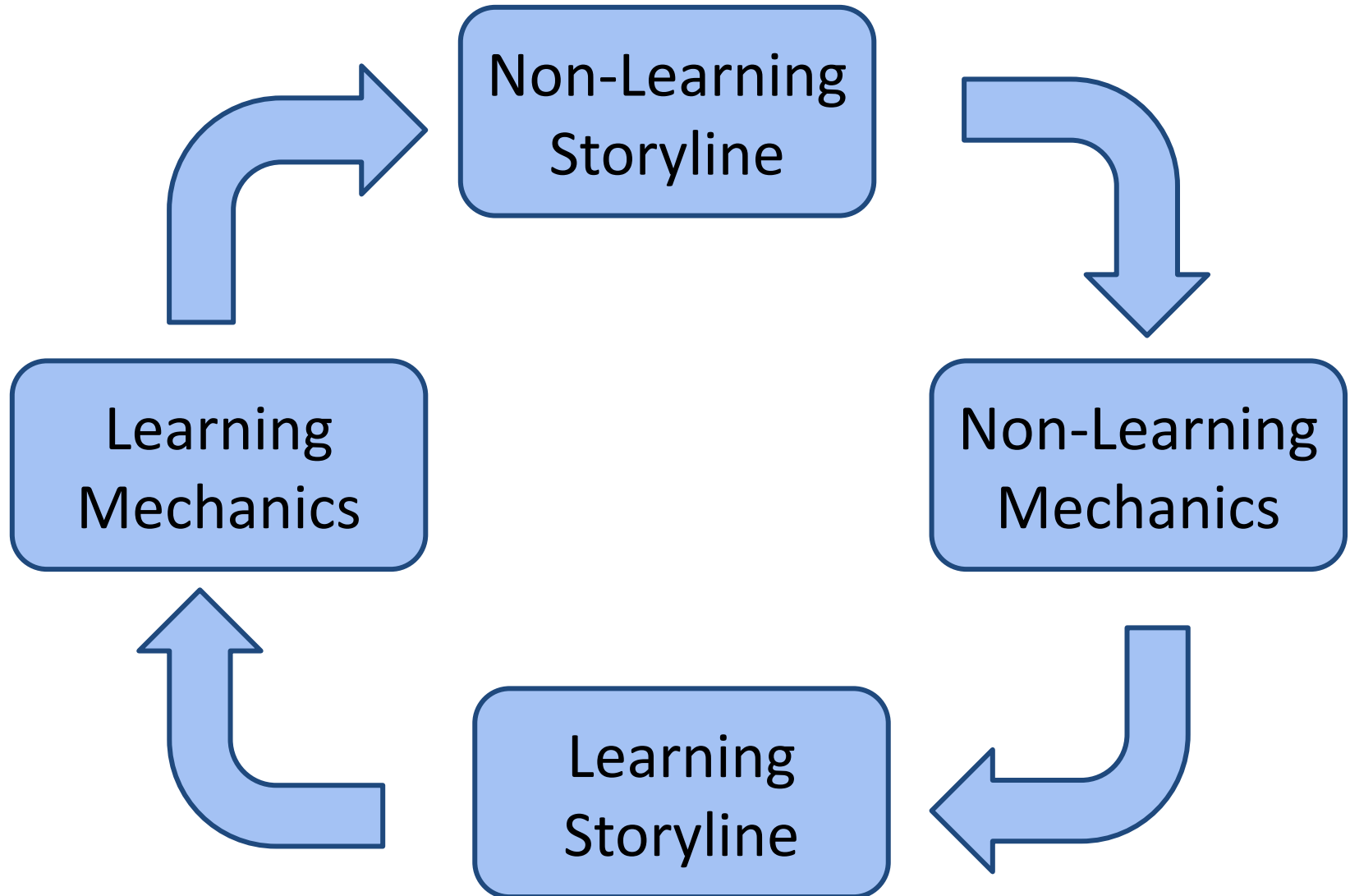
Analyzing ideas at all stages

Voting to filter them out

Revising ideas to make them better

Pursuing multiple ideas down more detailed design before ending with one

Iterative Process



How would you integrate ChatGPT

Identifying strengths and weaknesses of the ideas

Crazy ideas - individual words

Premise and storyline from the pair of words

Game Design Workshop

Choose an aspect of your game to design:

Premise

Game mechanics tied to premise

Game mechanics tied to learning content

Expansion Phase

Form four groups:

**Superposition, Entanglement, Quantum Operations,
Measurement**

Put any related words / brainstorm associated with those words in separate bubbles.

Collection Phase

Front side: One term from your brainstorm

Back side: Your concept (e.g., entanglement)

Collision Phase

In breakout group:

Shuffle your cards

**Pairs of cards - brainstorm three premises based on the pair
(do this twice)**

Enter into google form

As a whole class:

Hand cards to me

Shuffle all cards

**Pairs of cards - brainstorm three premises based on the pair
(do this twice)**

Enter into google form

Rating Phase

Vote for your top two ideas

Say what you like about each top idea

Good Design vs Commercial Success

- Games can be successful without following **all** good game design principles
 - Tetris
 - Angry Birds
- You are graded on using and explaining / justifying good **game design principles**

Commercial success has something
we still don't understand

Initial Brainstorming Process

Challenge: Match between learning,
mechanics

Round 1:

Pairs of cards: Premise on one color, sketch of game on another

Create at least 10 pairs in your group, with each person having pairs of cards that they can contribute

Initial Brainstorming Process

Challenge: Match between learning,
mechanics

Round 2:

Go through all of the game mechanics and premise cards, then:

Distribute the mechanics and premise cards separately

For each premise card, brainstorm one additional game mechanics card

For each game card, brainstorm 2 additional premises

Filter game ideas

Round 3:

Looking at game mechanics, vote for your top 3 in terms of

- meeting learning objectives,
- providing ways to gradually increase difficulty,
- Authentic, integrated decision-making

Looking at game premises / dramatic elements, vote for your top 3 in terms of

- Good match with game mechanics
- Flexible, broadly engaging
- Does not play into stereotypes

Filter dramatic elements

Round 4:

Looking at game premises / dramatic elements,
vote for your top 3 in terms of

- Good match with game mechanics

- Flexible, broadly engaging

- Does not play into stereotypes