Florist

A Game About Embracing Nature

Matthew Whitlock, Keyao Lyu, Yi Lu

Game Description

Summary

What is it

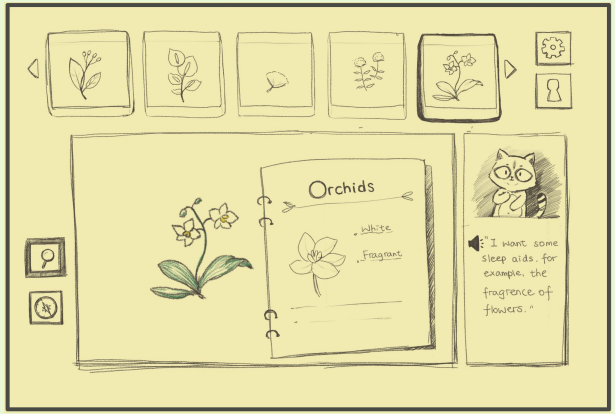
a mobile simulation adventure game about **learning how to identify common plants**.

Target audience

12+

Genre

Adventure,
Simulation



What will you play

The player's job as

a museum keeper is to

fill the collection with new plant species and samples.

Among the creatures, some of them are *Medicinal herbs* or *edible*, while some are *toxic* and dangerous.

The DPE Framework

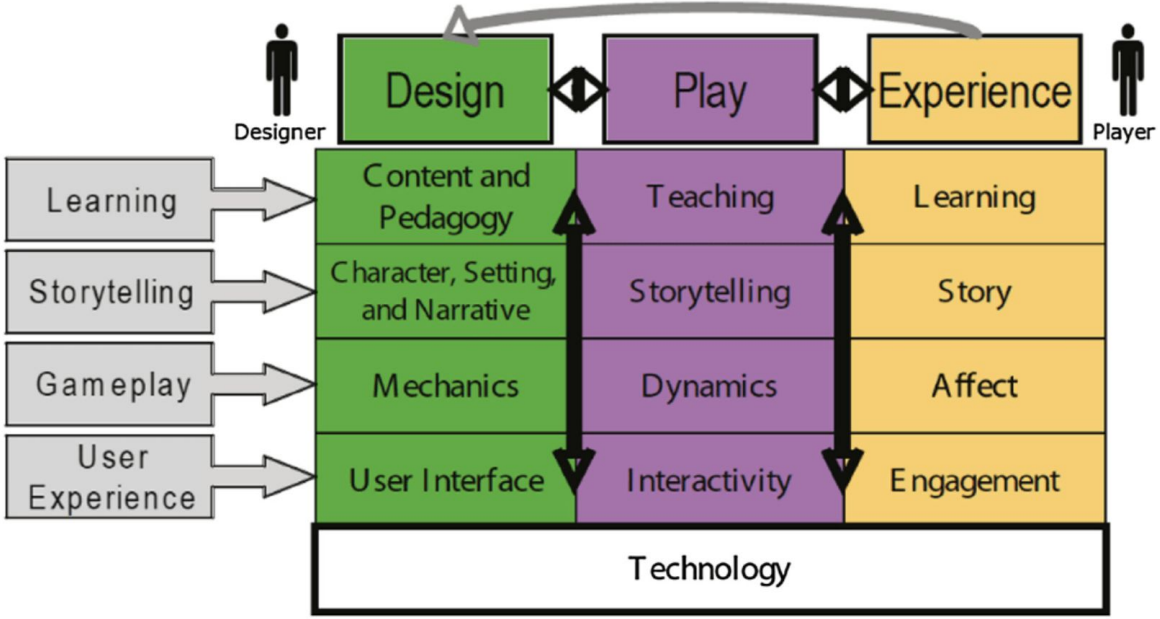


Fig. 4. The DPE framework [1].

Learning Objectives

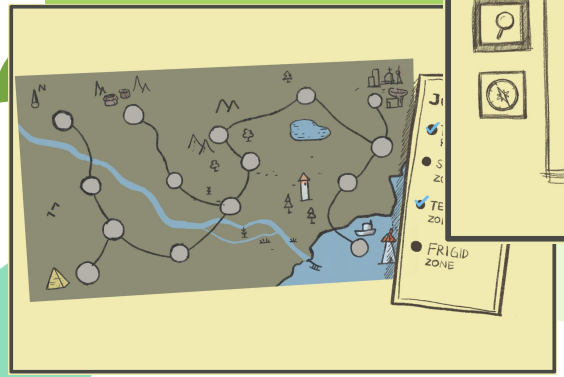
Learners will able to:

- Identify different types of plants by examining features such as leaves, leaf arrangement, seeds, tissues, flowers, berries, etc.
- Recognize important uses of plants such as providing oxygen, food, medicine, etc.
- Explain how the changes in weather or fluctuations in the natural surroundings influences plant growth.

UX/ Prototype

Identify Plants

Explore



Collect plants

Storytelling

Worldbuilding

You have a museum of plants, featuring a huge assortment of palms, herbs, conifers and flowers of all shapes and sizes that you collected and identified.

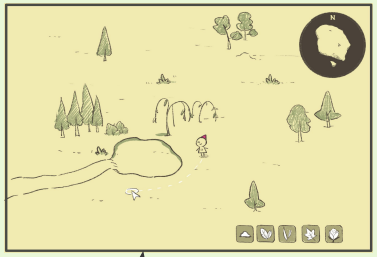
Characters

"We want to practice climbing trees! Could you help us find the highest conifer in this area?"

"The flies are so annoying. I wish there could be some herbs like Mozzie buster."

"I am suffering from insomnia... Could you give me some sleep aids?"

Gameplay



Intrinsic motivation

Actively Engaging

interact with the material

Intrinsic motivation: Curiosity and Competence

sense of achievement, Excitement of Challenge

Explore the region

Collect Plants(seeds, leaves, soil, flowers)

Make cards and create labels

Add to the collection

Start

Game Loop

Intrinsic motivation: Challenge

Goal

NPC Quests

Solve the puzzle

Gain Rewards

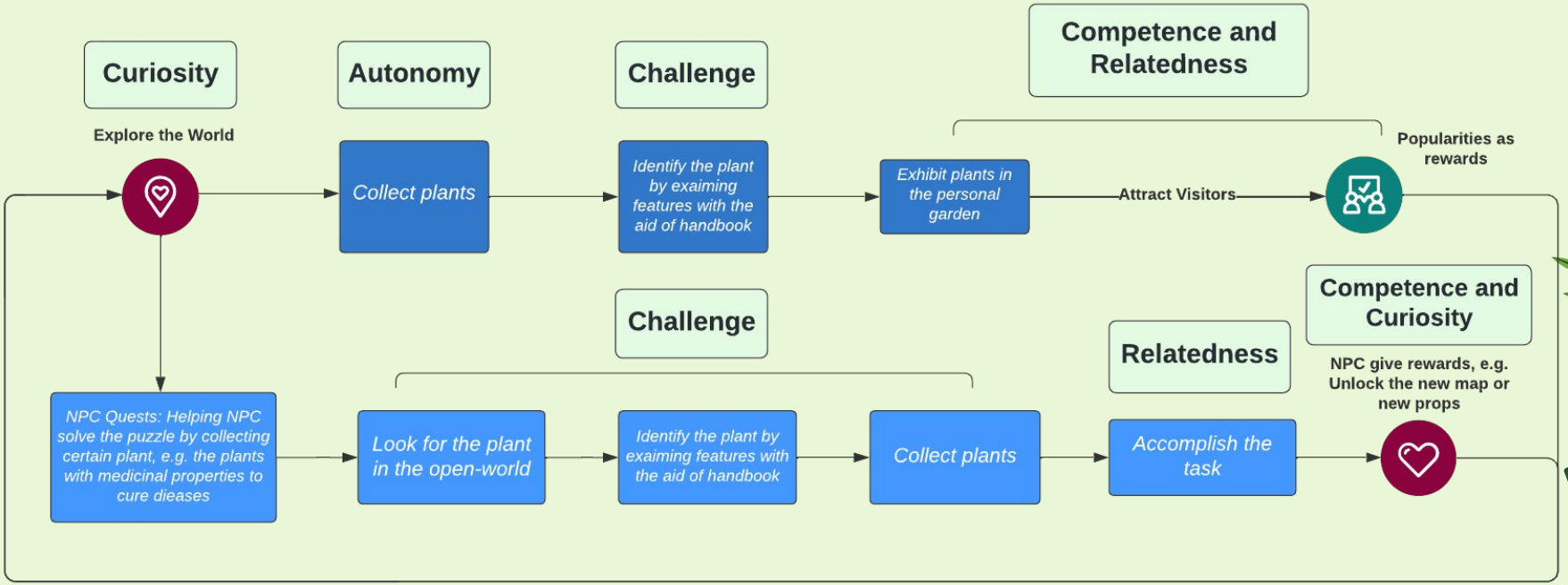
Unlock plants

More Plant Information

Extrinsic motivation

Increase Difficulty

Motivation:
Self Determination Theory (Ryan & Deci, 2000)



Learning Theory

Assimilation Theory (Ausubel, 1962)

Rote Learning vs. Meaningful Learning:

Help players relate new information to relevant aspects of their prior knowledge:

Subsumption occurs when players examine features of plants' parts and identify the plant, e.g. woody plants share common characteristics.

Providing scenarios to have players make their own connections: e.g. helping NPC to find plants that aid sleep.

Learning Theory

Constructionism:

- Building knowledge is done best through the creation of tangible and or sharable artifacts.
- Creation is entwined in the environment you are learning in.

Our Game:

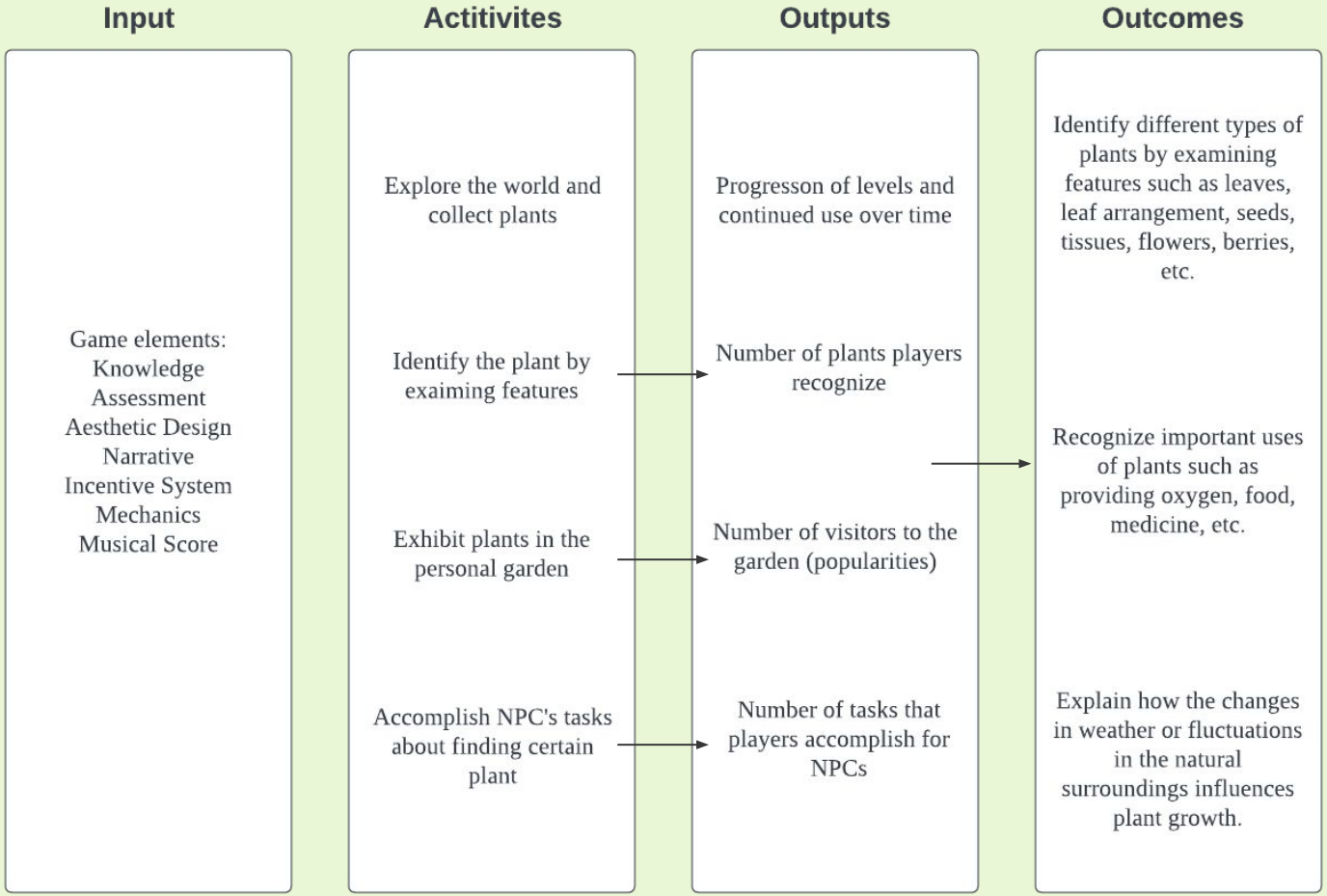
- The player is put into a roleplay position where they must take the role of survivalist and botanist.
- Player creates a museum/botanical garden through acquiring plants from quests and taking care of those plants.
- Learners are in a microworld where they play with the artificial world and build within it.

Learning Theory

Gee's Principles on Gaming:

- Cycle of Expertise:
  - Learners have multiple opportunities to practice recognizing plants.
- Skills as Strategies:
  - To achieve the goal of exhibiting their collection of plants and collecting the plant for people in need, players would practice recognizing plants based on plants' features.
- Sandbox:
  - Players can play around and explore different areas in the game with mitigated risks and dangers, but still feel a sense of achievement.

Logic Model


Input
Actitivites
Outputs
Outcomes
Game elements:
Knowledge
Assessment
Aesthetic Design
Narrative
Incentive System
Mechanics
Musical Score
Explore the world and collect plants
Identify the plant by examing features
Exhibit plants in the personal garden
Accomplish NPC's tasks about finding certain plant
Progresson of levels and continued use over time
Number of plants players recognize
Number of visitors to the garden (popularities)
Number of tasks that players accomplish for NPCs
Identify different types of plants by examining features such as leaves, leaf arrangement, seeds, tissues, flowers, berries, etc.
Recognize important uses of plants such as providing oxygen, food, medicine, etc.
Explain how the changes in weather or fluctuations in the natural surroundings influences plant growth.

Research Evaluation

In-Game Assessment:

- Mostly qualitative
- View player actions throughout the game (use of investigation, how quickly they identify plants, etc.) and how they change the further they are in.

Out-of-Game Assessment:

- Three Assessments.
- Key questions: uses for plants, what to look for in classification, players identify 3 plants within the game
    - Before the game
    - Immediately After
    - A follow up assessment after 3 months