

Introduction to Game Design



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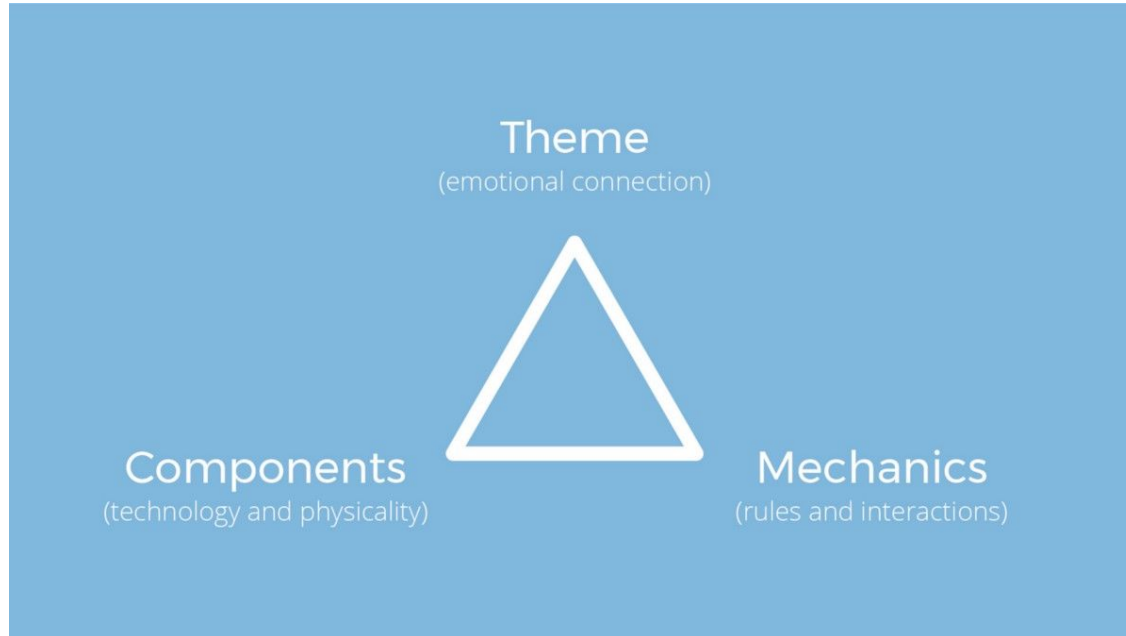


Introduction to Game Design

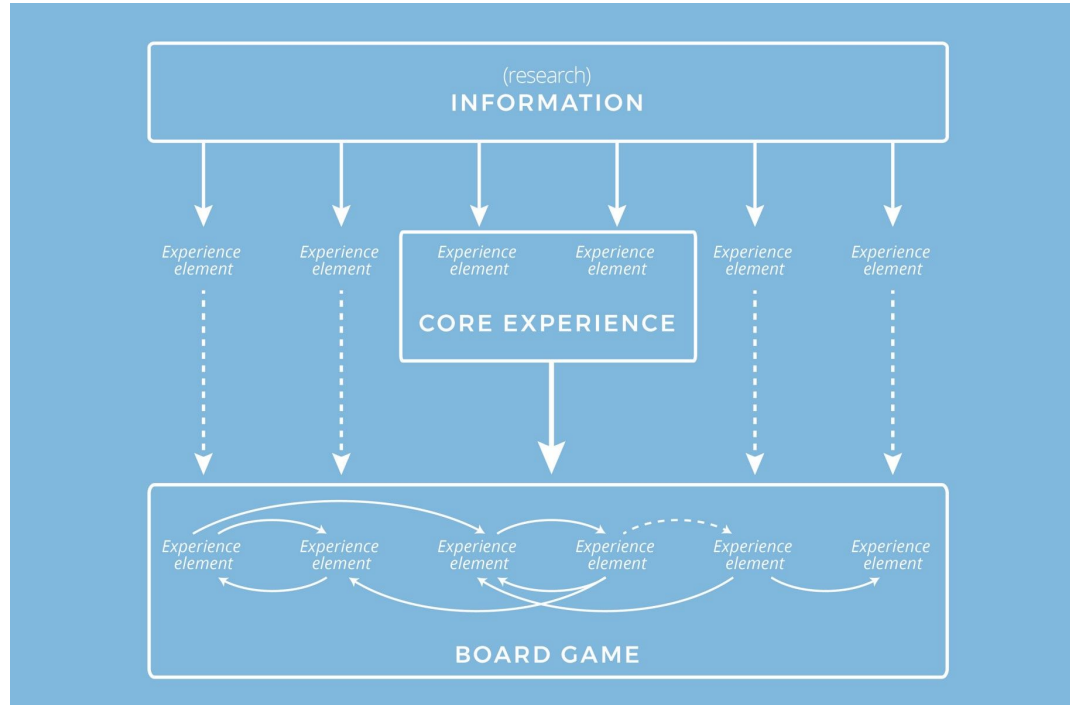
Part of Process:

- Process
- Storytelling
- Idea & Brainstorming
- Game Mechanics (Part)
- Looping
- Flow

Introduction to Game Design



Introduction to Game Design



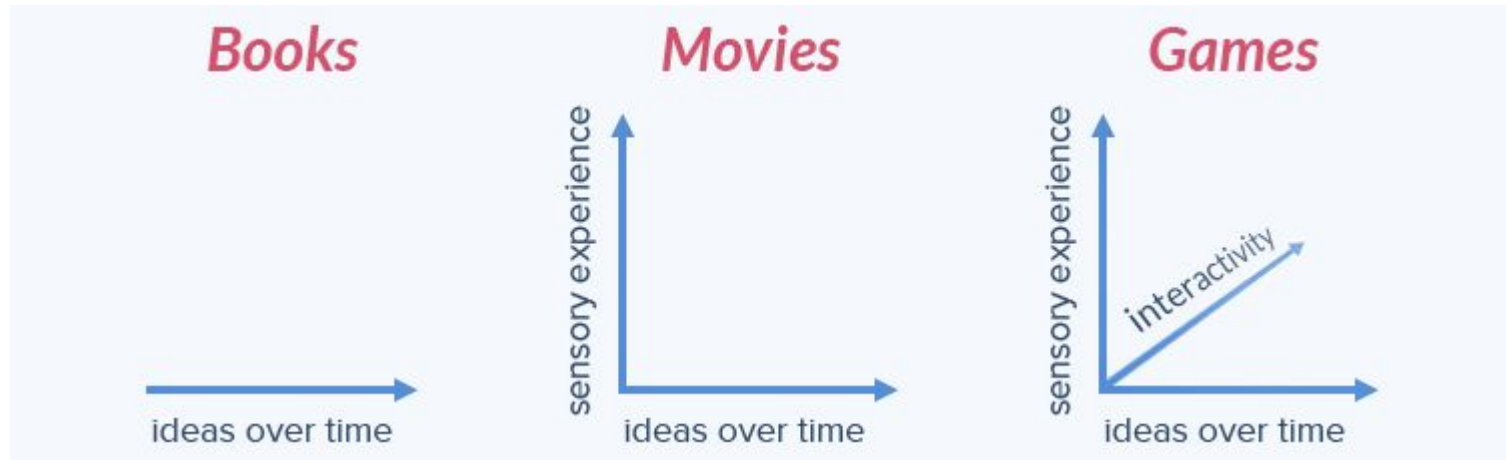


Storytelling

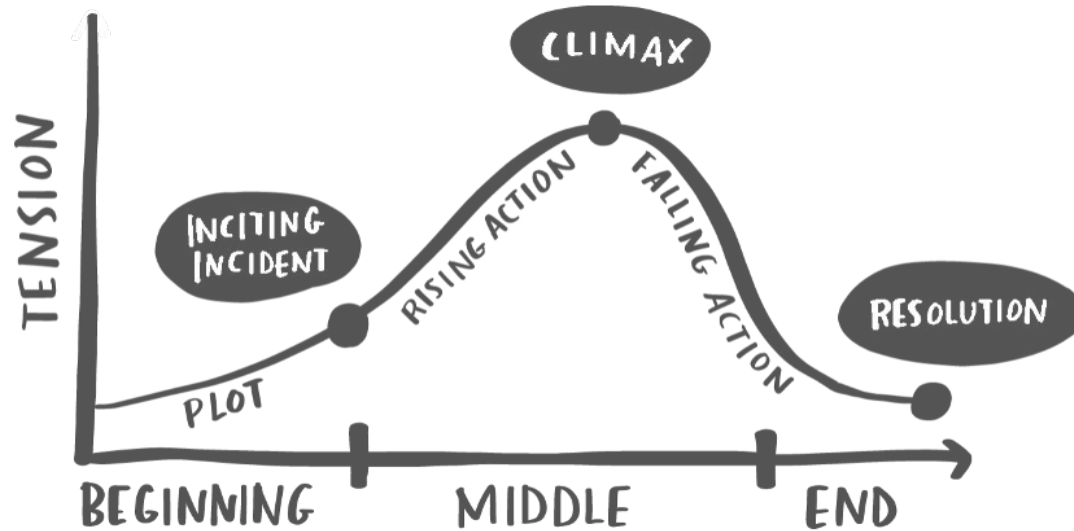
Storytelling is the interactive art of using words and actions to reveal the elements and images of a story while encouraging the listener's imagination.



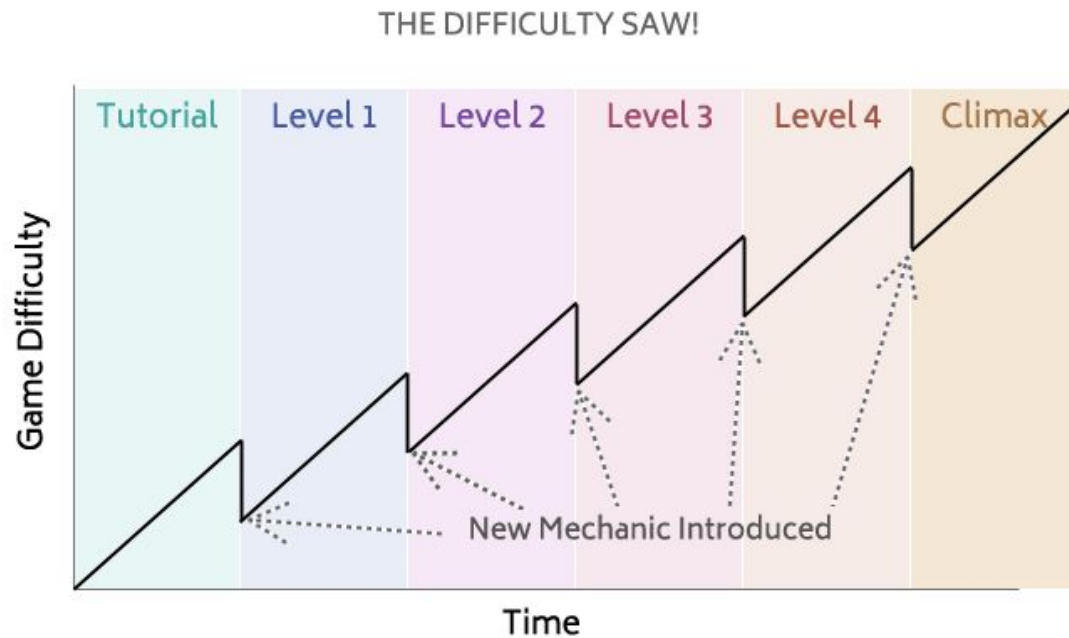
Storytelling



Storytelling

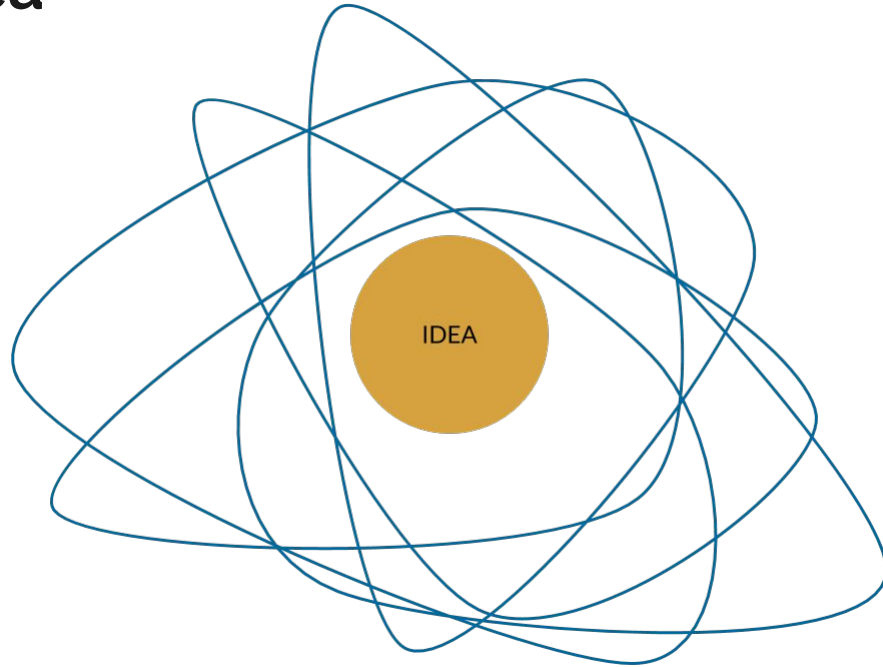


Storytelling



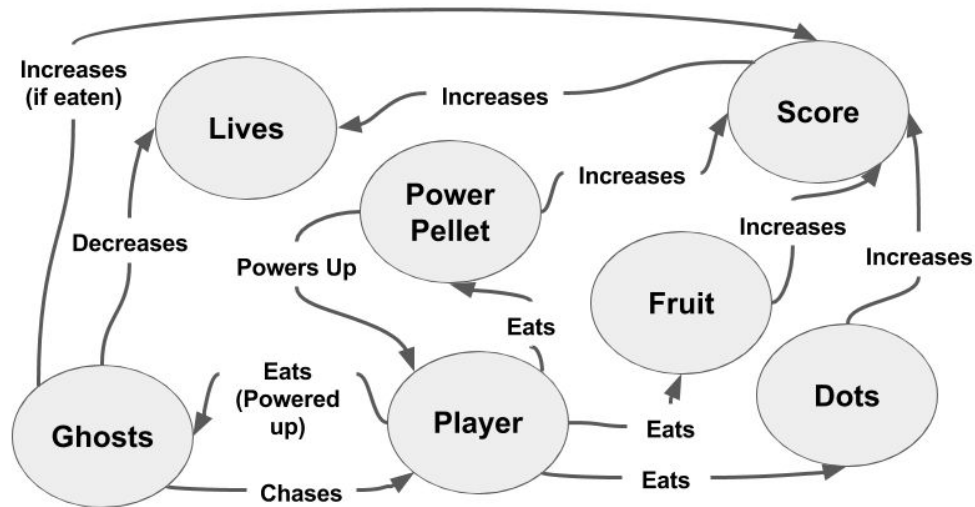


Theam: Idea



Brainstorming & Mind Mapping

Noun/Verb Diagram (Pac-Man)





Game Mechanics

"Game Mechanics are **constructs of rules and feedback loops intended to produce enjoyable gameplay**. They are the building blocks that can be applied and combined to gamify any non-game context."

"Mechanics are the most visible part of gamification and tend to be the primary focus of most gamification projects."



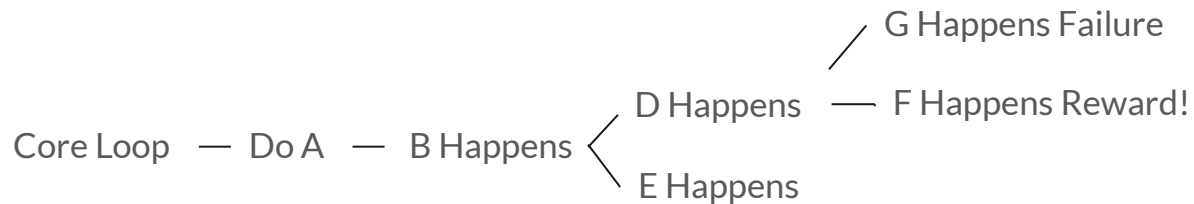
Introduction to Game Design

70% is communication (Representation in the right direction)

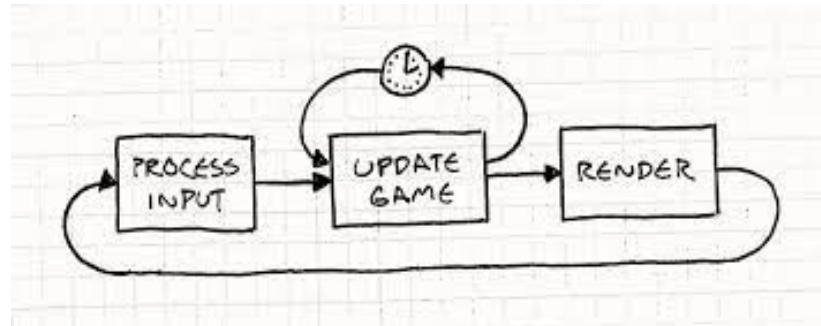
30% is paper work (collecting data, interviewing, research etc.)



Restate Mechanics



Restate Mechanics



The Loop

Developing Life information

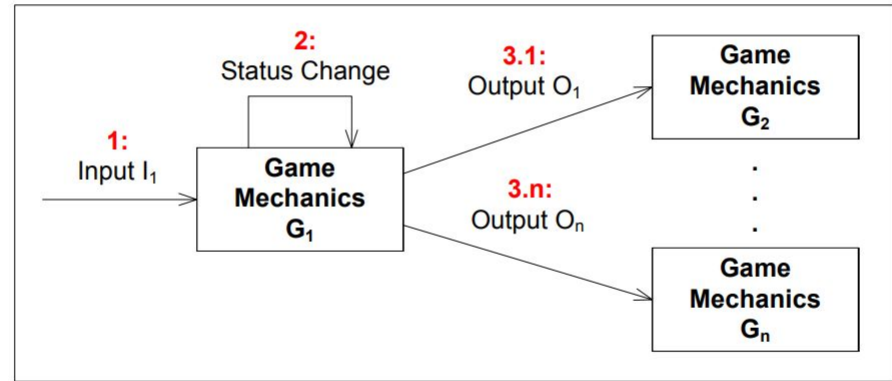
Develop synopsis sheets

Genre, demographic and needs

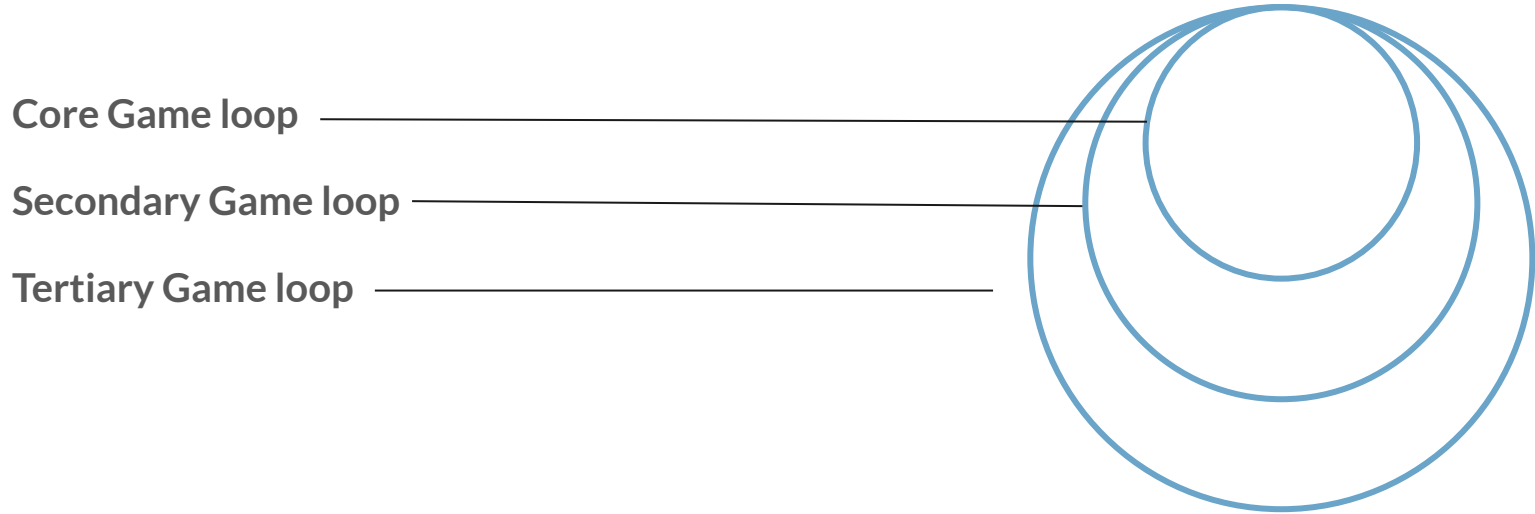
Developing and maintaining framework

Mind maps

Develop journey examples etc.



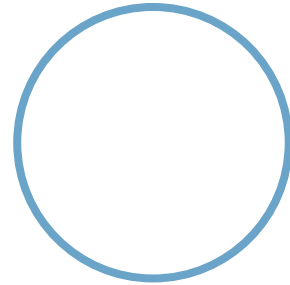
Nested Loops, the first concept in game design





Core Game Loop

- A loop is a set of actions or steps that the user is repeating, using the primary game mechanics.
- It's the cycle of work-and-reward actions the player takes every session; sometimes called a short-term, primary, or compulsion loop
- Setting the basics and find the genre

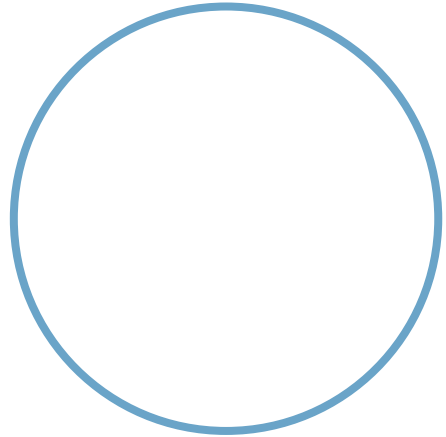




Secondary Loop Skin

- Insert higher level of goals providing the user a flow of play, the secondary gameplay supports the core loop.

- Incorporating assets, supports the first one, capture the flag at first person shooter, reward the user etc.



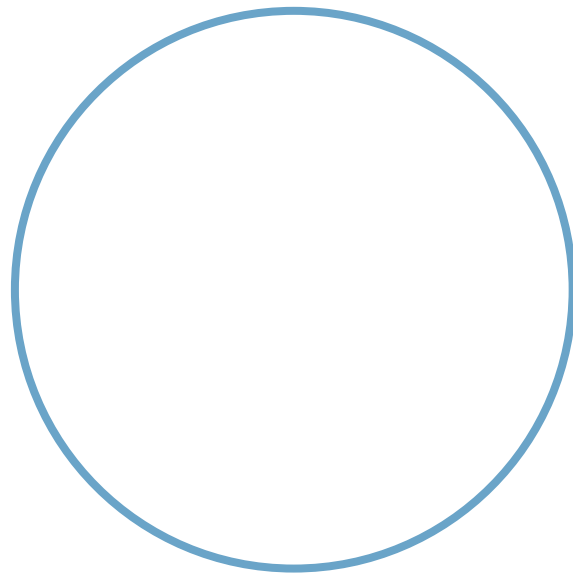


Tertiary Loop Skin

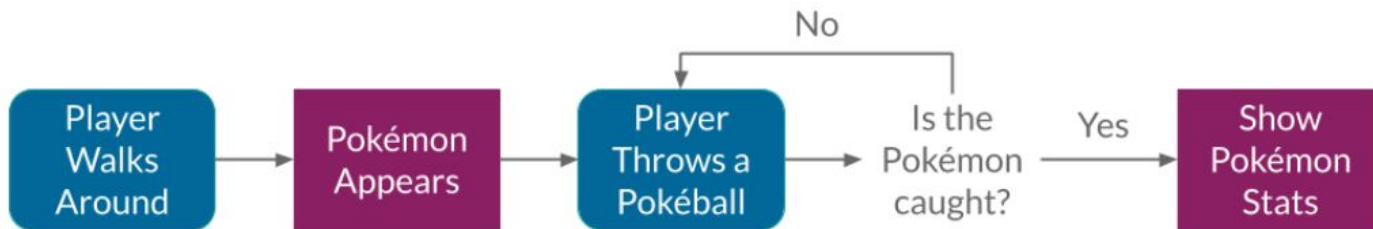
- Advance in the story, achievements, character development. It's also referred to as the 'Metagame'

- Meta-Loop: actions the player occasionally takes that expand on the core loop; sometimes called a long-term or secondary loop.

- Economy Loop: the flow of in-game currencies and resources that are produced and consumed by steps in gameplay loops.



Setting up Mechanics



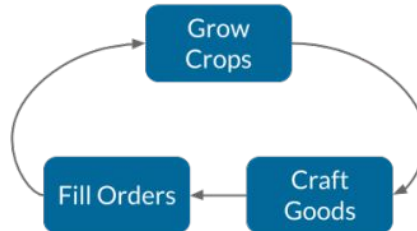
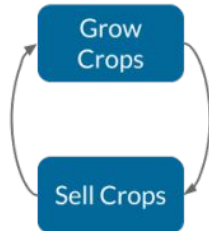
A simple example of a UX flowchart for catching Pokémon in Pokémon GO



Game Loops

- Game loops are structural tools game designers use to describe what it will be like to play their game.
- Building loops helps us to think through the major features our game needs, how the player moves between them, and what resources fuel the process.
- Articulating a game's loops also helps to identify the ways in which it is innovative.
- Most games in the same genre have the same, or nearly the same, core loop. It only takes a small tweak in a core loop for a game to go from run-of-the-mill.

Game Loops



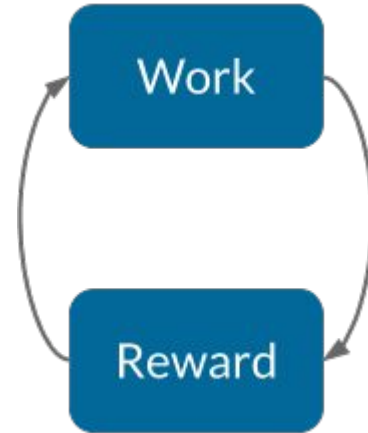
Hay Day forever changed farming games by expanding the simple 2-step loop Zynga popularized in FarmVille to 3 steps; properties of Zynga and Super Cell

2-Step Core Loop

A core loop is the smallest subset of actions the player can take indefinitely. It is comprised of two steps:

Work: what the player spends most of their time doing; challenging in some way

Reward: a prize, choice, or action that makes the player better at doing Work, or let's the player do more Work

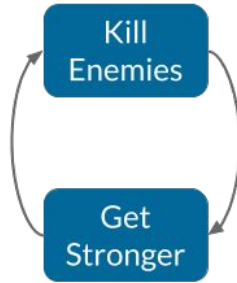


2-Step Core Loop

-In each of these cases, the reward unlocks yet more work for the player to tackle that increases in difficulty or complexity over time.

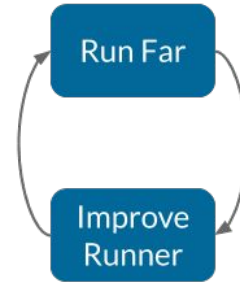
-As the player gains experience, their competency improves. The game must therefore provide the player with greater challenge to keep them in flow.

Role-Playing Game



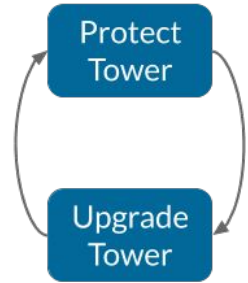
Let's you kill stronger enemies

Endless Runner



Let's you run farther

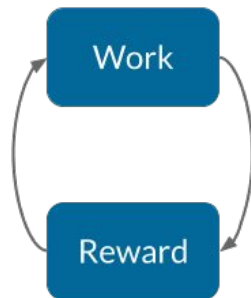
Tower Defence



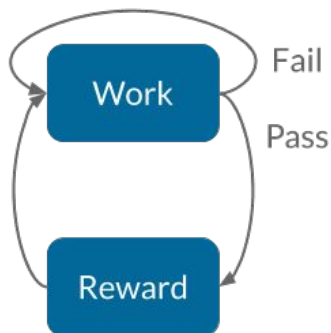
Let's you defend from stronger attackers

Other Types of Core Loops

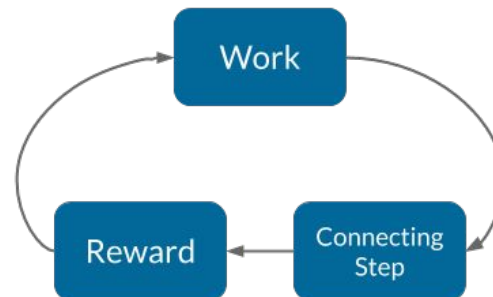
2-Step
Loop



Conditional
2-Step Loop



3-Step
Loop

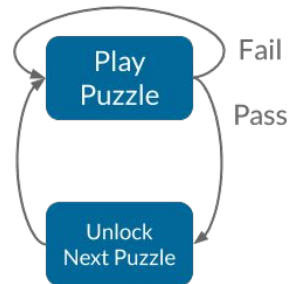


Conditional 2-Step Core Loops

-A 2-step loop is conditional if the player can fail a check of some kind, preventing them from proceeding to the reward node.

-You will find this type of core loop in level-based games where the player must beat their current level before unlocking the next one.

-If the player fails on the work node, they must replay the same content until they pass, unlocking the next level.



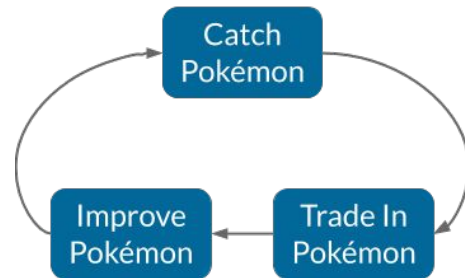
Candy Crush Saga property of King

3-Step Core Loops

-In a normal Pokémon game, you use your own Pokémon to subdue and capture new ones. In Pokémon GO, you throw Pokéballs until you catch your target.

-The number of Pokémon you can hold is capped, so If you do not trade some in regularly, the core loop grinds to a halt. You need the resources you get from trading Pokémon to improve the ones you keep.

-The frequency at which you trade Pokémon remains relatively constant based on how many Pokémon you catch. If the frequency gradually reduced over time, it would more likely belong in the meta-loop.

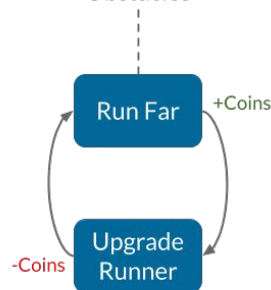


Loops

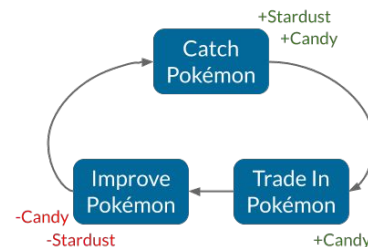
-Subway Surfers is a great example of a simple core loop powered by the most limited of resources. You would see numerous types of collectible items you can obtain during gameplay or from loot crates.



Swipe to Dodge
Obstacles

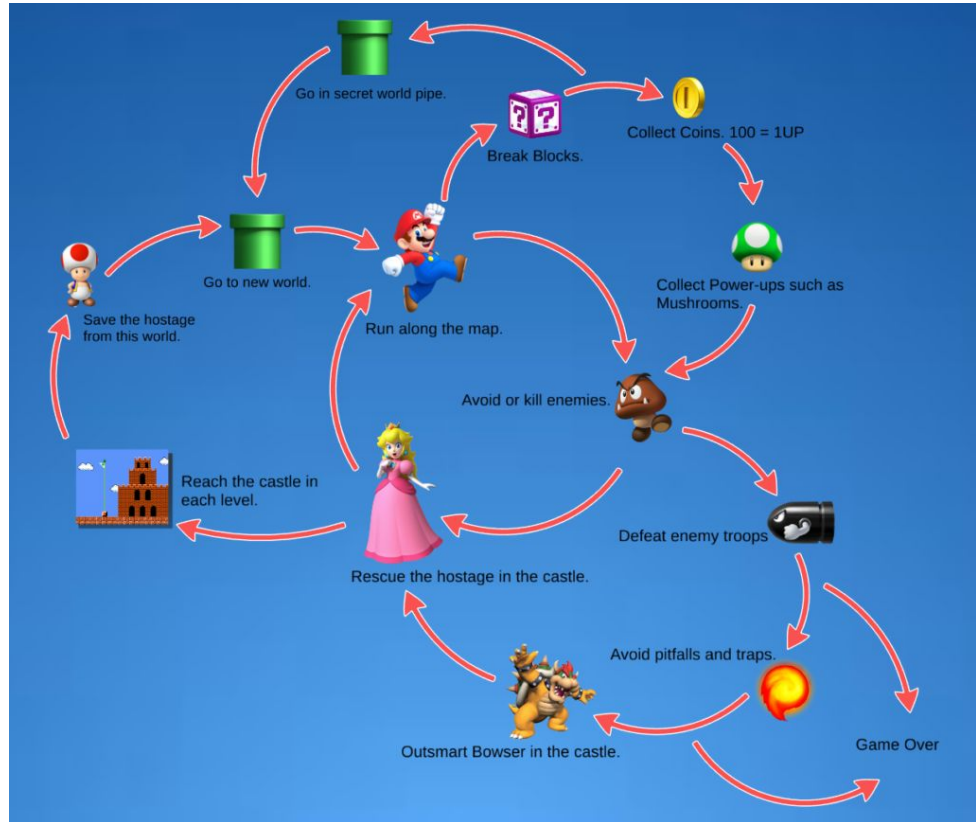


*Subway Surfers,
property of Sybo
Games ApS*



*Pokémon GO uses both Candy and
Stardust as key resources; property
of Nintendo*

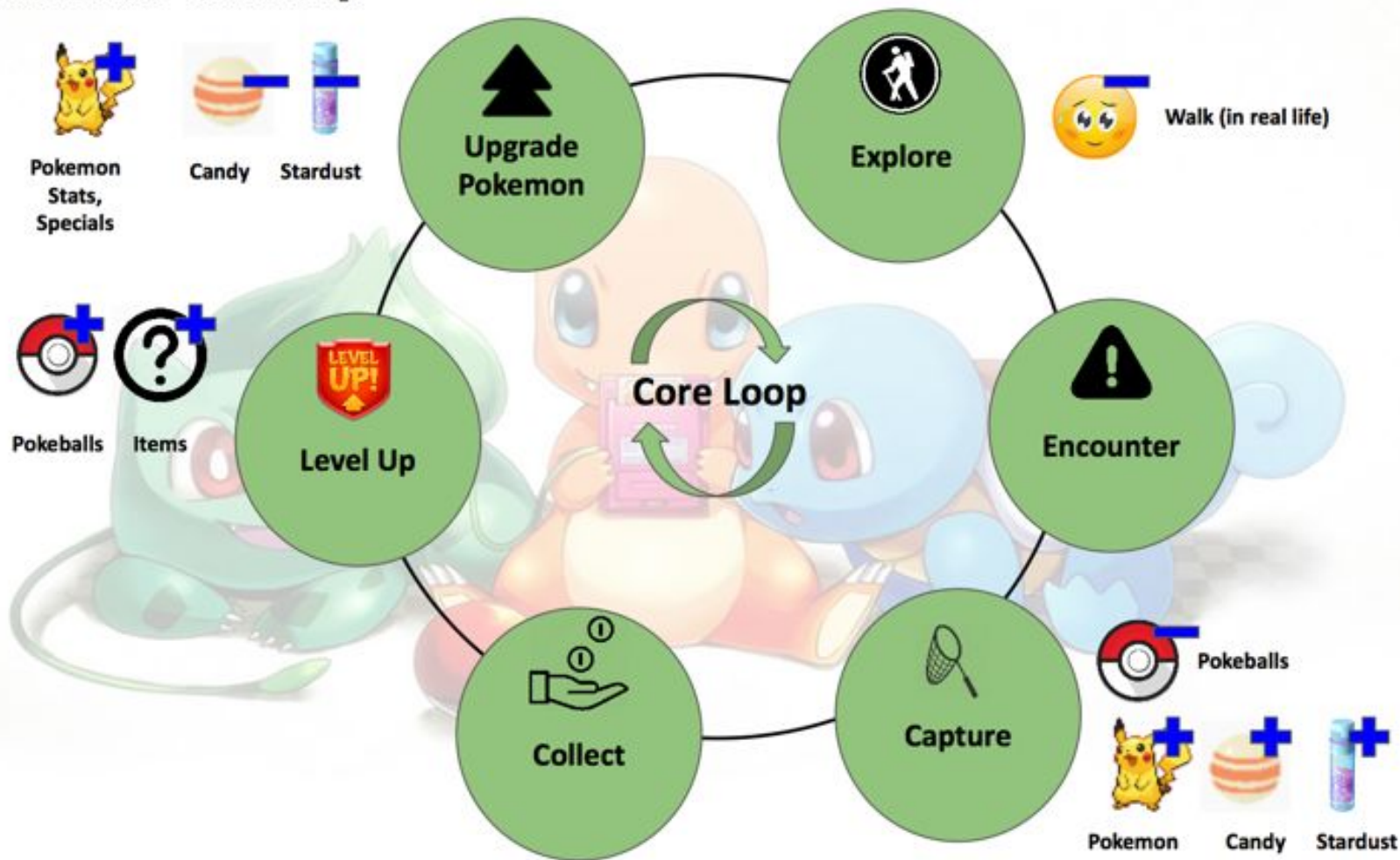
Examples





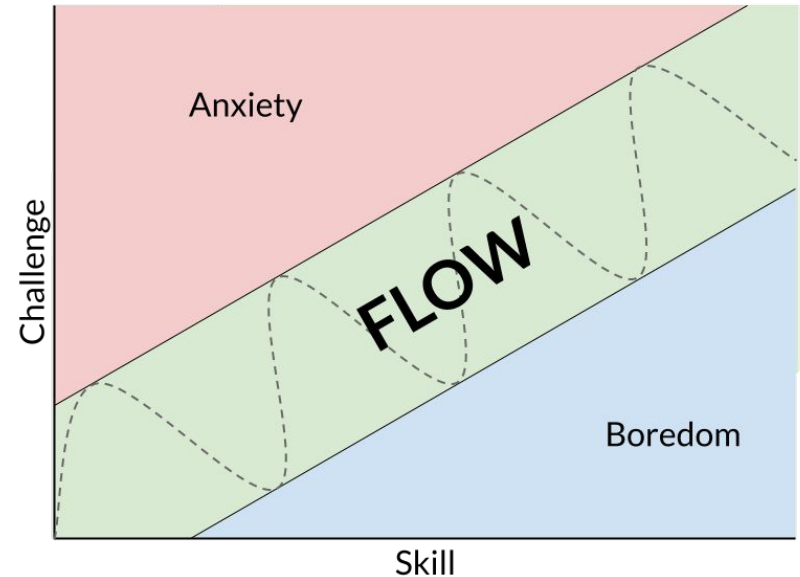
Pokemon GO - Core Loop

10/20/2016



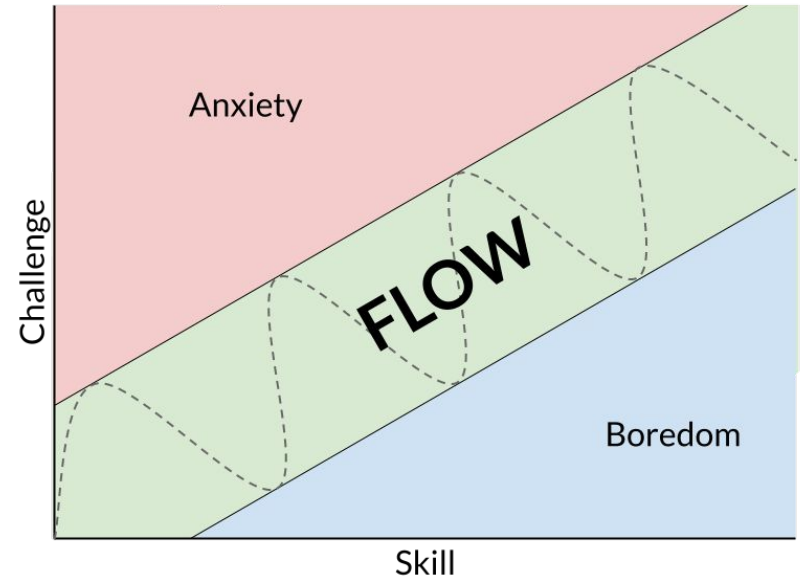
Staying in Flow

- Flow uninterrupted mental state in which a person's skill is met with an ideal amount of challenge.
- A great game finds the player's flow state and keeps them there through tuning and level design



Staying in Flow

- Cone of Flow:** there is room to fluctuate within the cone of flow. The game can feel a bit easier after you gain a powerful new weapon.
- A well-tuned game keeps the player safely in the cone of flow as they progress through the experience, gradually boosting difficulty to match the player's rising skill level.
- If the game suddenly ratchets up the challenge, you'll experience a burst of anxiety or stress.





Takeaways

- Keeping your core loop simple helps your audience grow the main idea of your game before you layer on the next level of information.
- Simpler, smaller games will be easier to dissect than massive experiences with many features.
- Ask yourself what gameplay actions you take every time you play the game. These are likely core loop actions.
- Storytelling gives an edge to your game.
- Interest curves balances your game flow
- Flow gives you an idea to maintain curiosity in the gameplay.

Small Scratch Task



[Scratch Tutorial for Beginners - Make a Flappy Bird Game - YouTube](#)