Extra Credit on Youtube- Game design distinctions (check it out)

What is a game

* Game Design vs game mechanic
  + Game designs are characteristics that evolve out of game mechanics
  + Mechanics
    - A thing that the player does or is that are used in a game (guns, bullet-time,
    - How the mechanics work together to make a coherent game
  + Design
    - How the world interacts with the player to create different meanings
* What are Games?
  + Rules/ systems
  + Goals (Intrinsic/ Player created)
    - Exclusive to games
  + Choice
    - Being able to influence the outcome of the end state
  + Puzzles have rules and choices
    - The only goal is to solve it
  + Toys have choice
    - Not really many rules or goals, just go
* The Magic Circle
  + 1938- Johan Huizinga
  + Contains
    - Space
    - Context
    - Rules
  + Articial meaning of actions are created when bound by the rules
    - Otherwise, many actions would have no meaning out of context
    - Provides immersion into whatever the game world may be
* Immersion vs. Engagement
  + Immersion
    - You exist within the game world
    - Inside the magic circle
    - Usually only immersive the first time around
      * After the first time, you no longer are immersed, you know whats going to happen
      * Imbalcnce of knowledge
    - Really good games are immersive over and over again (witcher/skyrim)
  + Engagement
    - Existing outside of the game world
    - Outside the magic circle
* The Juice
  + What makes a game actually fun or interesting.
  + Not specifically a mechanic or design, though it could be some of these
    - What makes the game aesthetically and intrinsically fun?
  + Usually built around one mechanic
    - The entire game is built around it, expanding on it and making it better
    - Fun platformers should make it fun to move around, even without any graphics or models
      * Gravity, momentum should be fun to manipulate
  + Making digital chess interesting
    - Add idle animations to each piece
      * Pawns would shake nervously, bishops pray, knights horse neighs
    - Add calm but purposeful music (like tetris, kinda)
    - Add animations to each move
    - Each overtake should have its own unique animation (Pawn takes rook, rook takes bishop, etc)
    - As the pieces begin to dwindle, the pieces will begin to look more nervous,
      * Music may change on that players turn
    - Table will perhaps be a grid on a field where two armies meet to do battle
      * Not flat textures
    - The camera would oscillate slowly (give player control if they need it)
      * Rotate to the other side on their turn
  + Making regular chess interesting
    - Make each tile have a screen that would show a different color based on which type of piece was on it
      * Each side piece would have different colors, just the tiles would be similar based on type
    - Make magnetic tiles that move pieces for you
      * Knights/diagonals would be difficult
      * User input screen or arcade cabinet type controls
* Game mechanic stuff
  + Balance
  + Probability
    - Almost every game has it
    - Has to have a balance between skill and probability
      * All probability gets old unless something is at stake (gambling)
      * All skill will make the same experience every time
* Gameplay
  + Things the player does
  + Things the entities in the game do to respond

Making a Game

* Design and Ideas
  + Keep a small scope
    - Don’t try to make the big time the first time
    - Especially alone
  + Build something you can play (and learn from)
  + Start brood (kill your babies)
    - Don’t get attached to an idea
  + Use the internet
    - Lots of tutorials
  + Coding is easier than it seems
    - Kinda
  + Know what youre good at and what you can use
  + Design heuristics (limits work in design)
    - Binding an idea with limits may actually make it better
  + Don’t give up!
* Design thinking
  + Brainstorming (step 0 sorta)
  + Empathize
    - Think like an outsider
    - Perform field observation
    - Ask “why” question
  + Define
    - Figure out what you don’t know
    - Research it
    - Make a framework
  + Ideate
    - Come up worth a creative solution
    - Let ideas get made
    - Don’t judge
    - Quantity not quality
  + Prototype
    - Tackle a doable piece of the problem
    - Narrow the goal
    - Make milestones
  + Test
    - Let users interface with prototypes

Cool Games Inc. Podcast (just for fun)

Warp Runner Coding Help

For jumping/porting

1. Check ground collision
2. If collision= true
   1. Can jump=true
   2. Can port=true
   3. Isonground=true

To Do:

* Warp State
  + ~~Increase gravity~~
  + ~~Only allow once~~
  + ~~Increase relative to current position~~
* Jump State
  + ~~Only allow once~~
* Wall Collider
  + ~~Force instant game over~~
  + ~~Set hitbox to only one side~~
  + Make obstacles with all sides death
* Ground check
  + ~~Set ground check for allowing jump/port~~
* Sprites (Make them all)
  + ~~Animate runner sprite~~
  + ~~Animate jump/warp animations~~
    - Particle effect?
  + Set longer backgrounds to repeat
* User Interface
  + ~~Mark score increase~~
  + ~~Game over message~~

Difficult does not mean punishing

Difficult allows the player room to improve and change their strategy

Punishing makes them lose for no reason other than memorization or bad luck

Easy games vs. depth

Games are good when they teach their players how to play in an engaging way

Games have depth when you have lots of ways to solve a problem

Manipulating choices

Giving rewards for doing a certain action, but on your terms for giving it out

Keep the need high, then give just enough to make them want more

OR keep them engaged to achieve an end goal (mystery, mastery)

Perfect imbalance

Making a game imbalanced allows the players to develop new strategies to counter the imbalance, which creates new imbalances, and on and on and on

* Placement of the dungeon
  + Let the player find it without handholding, but have every player find it
  + In an area normally easier
    - Forces you to leave and come back stronger
      * Gives warning beforehand
* On the way in
  + Nothing for a while, builds tension
  + Gives really hard enemies right away
    - Sets the tone, lets you know youre ready
    - That’s why theres a long hallway to trap them in
* Each room
  + Combat
  + Narrative
  + Puzzle
  + Component
* Basement room
  + Combat
    - First ones trigger immediately
    - Traps trigger if you try and charge
    - Makes it very challenging out of simple mechanics
      * Teaches to look out for traps
    - Next one is a choke point, limits who can fight
  + Narrative
    - Wells, barrels, storage tanks
    - It tells where the keepers kept their water and wine
    - Baseline for telling the story
    - Ghasts tell that something went wrong here, calamity
  + Puzzle
    - Trains the player to search for traps
    - Finding the hidden door
  + Reward
    - Rewards “reward” exploration and trap checking
* Room 1: Delving Room
  + No Combat
    - Harsh difference from the last room
  + Narrative
    - Harsh contrast from the cellar piques interest and wonder
    - Mold and bodies hint at a mystery of a disaster
    - Puzzles hint at how Durlag thinks
  + Puzzle
    - Four dwarven riddles
  + Reward
    - Both solving riddles, and consumables
    - Helps a party finish the tower
    - Rewards can ensure that players have solutions to future problems