Games Fundamentals
03 – Getting Started

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Useful Books

- These are **not required**, you may find them useful. You should find them all in the library
  - Challenges for Game Designers, Brathwaite & Schreiber, 2008, Charles River Media
  - A Theory Of Fun, Koster, 2013, O'Reilly Media
  - Level Up! The Guide to Great Video Game Design, Rogers, 2014, Wiley
  - Introduction to Game Design, Prototyping, and Development, Bond, Addison Wesley

Useful Resources

- Board Game Geek
  - Forums, reviews, game rules, etc.
  - www.boardgamegeek.com
- Youtube Let's Play Videos
  - Tabletop, Game Night, Let's Play
- Game Design Concepts
  - Ian Schrieber's online game design course
  - https://gamedesignconcepts.wordpress.com/

Recap

- Game Design Concepts
- Ticket To Ride

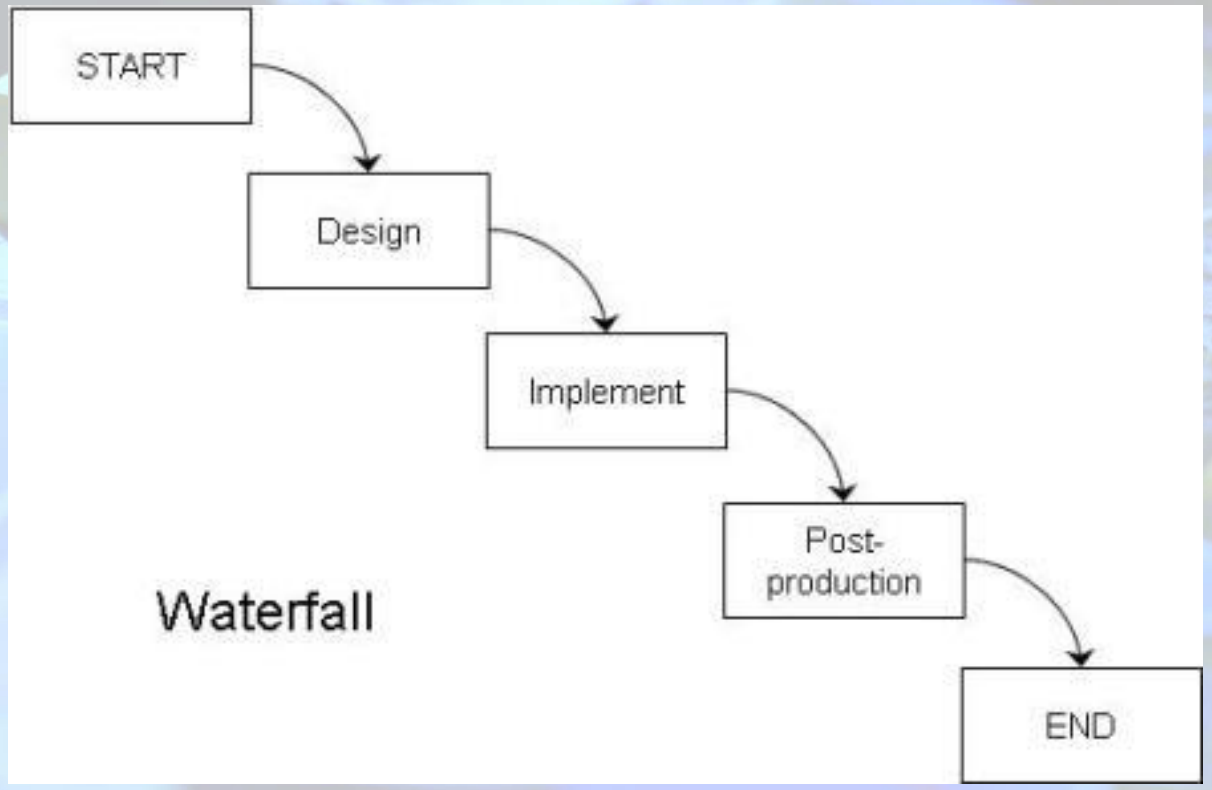
Getting Started

- Design Methodologies
- Generating Ideas
- Avoiding "Designer's Block"
- Prototyping

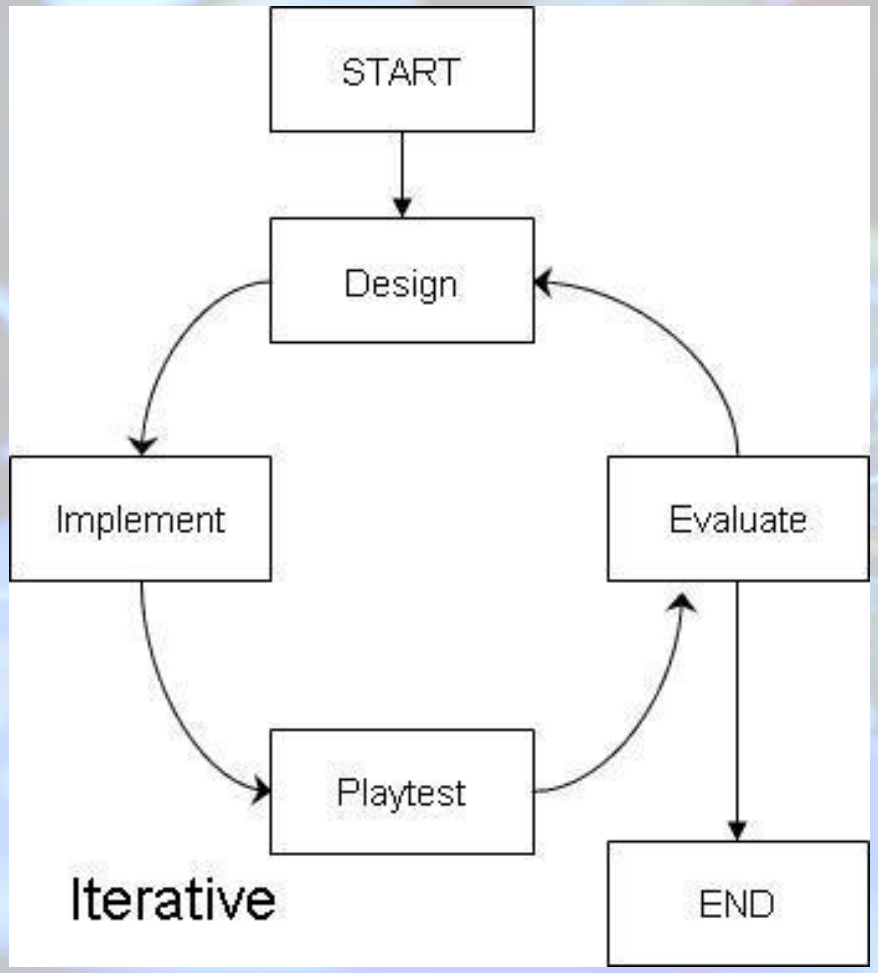
- This lecture comes largely from Game Design Concepts Level 2 and Level 4
- https://gamedesignconcepts.wordpress.com/2009/07/09/level-4-the-early-stages-of-the-design-process/

Design Methodologies

- Traditional approach, the waterfall model

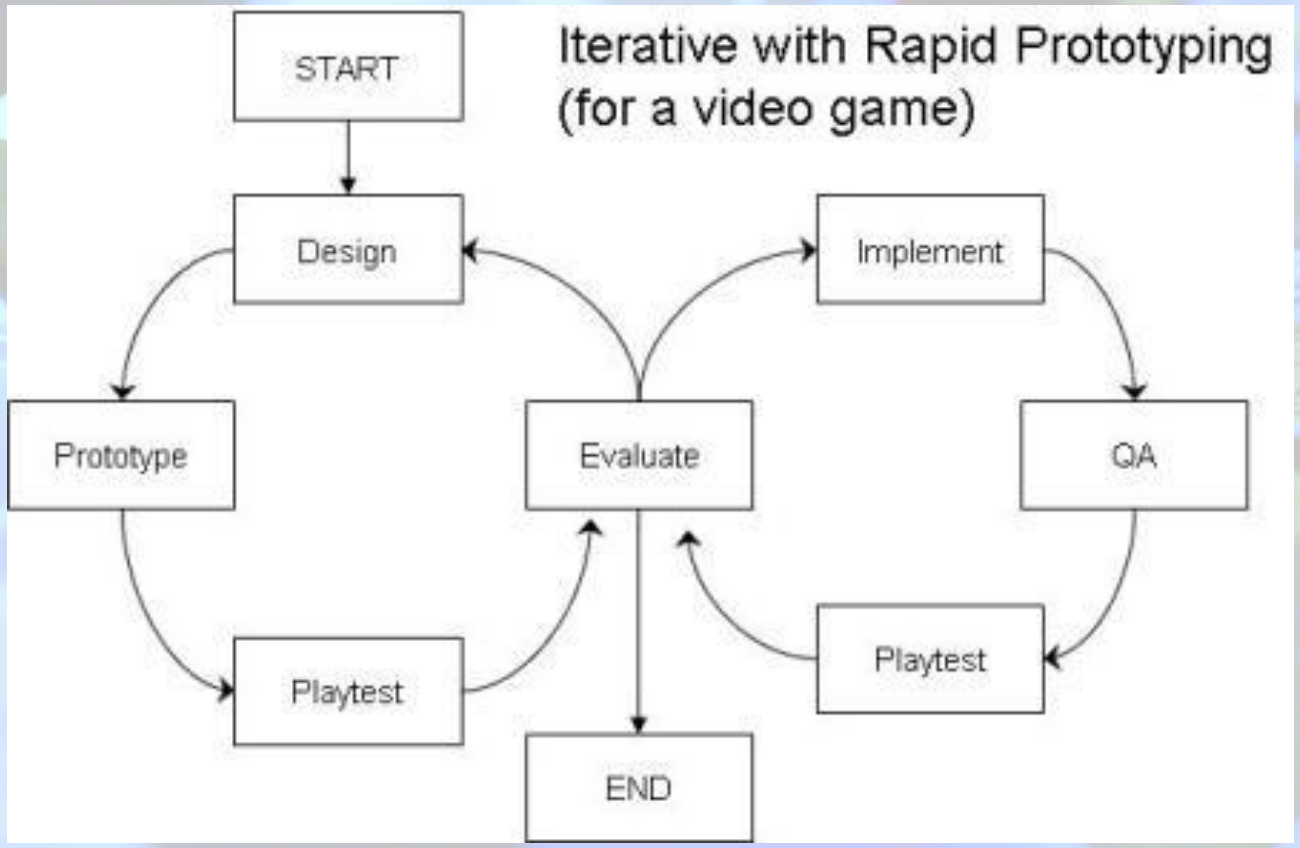


The Iterative Approach



Iterative With Rapid Prototyping

(for video games)



Iteration and Risk

- Games have many kinds of risk associated with them. There is **design risk**, the risk that the game will not be fun and people won't like it. There is **implementation risk**, the possibility that the development team will not be able to build the game at all, even if the rules are solid. There is **market risk**, the chance that the game will be wonderful and no one will buy it anyway. And so on.
- Iterative design is used to reduce design risk. The more times you iterate, the more you can be certain that the rules of your game are effective.
- (Rapid prototyping is used to reduce implementation risk)
- **The more you iterate the better your game will be**

Generating Ideas

The first thing that happens in a design is that you must come up with the basic core of an idea. This isn't necessarily fully-formed, but just a basic concept. There are many different starting points for a game's design. Here are some examples, in no particular order:

- Start with the **core "aesthetics"** — what do you want the player to feel? How do you want them to react? What should the play experience be like? Then work backwards from the player experience to figure out a set of rules that will achieve the desired aesthetic. Think about the best experience you've ever had while playing a game; what game rules led to that experience?
- Start with a **rule** or **system** that you observe in everyday life, particularly one that requires people to make interesting decisions. Look at the world around you; what systems do you see that would make good games?

Generating Ideas

- Start with an **existing, proven design**, then make modifications to improve on it (the "clone-and-tweak" method). This often happens when making sequels and ports of existing games. Think of a game that you thought had potential, but didn't quite take the experience as far as they could; how would you make it better?
- Start with **technology**, such as a new game engine (for video games) or a special kind of game piece (like a rotateable base for miniature figures). Find a way to make use of it in a game. What kinds of items do you have lying around your living space that have never been used in a board game before, but that would make great game "bits"?
- Start with **materials** from other sources, such as existing art or game mechanics that didn't make it in to other projects. Design a game to make use of them. Do you have an art portfolio, or earlier game designs that you didn't turn into finished products? What about public domain works, such as Renaissance art? How could you design a game around these?

Generating Ideas

- Start with a **narrative** and then design game rules to fit, making a story-driven game. What kinds of stories work well in games?
- Start with **market research**: perhaps you know that a certain demographic is underserved, and want to design a game specifically for them. Or maybe you just know that a certain genre is "hot" right now, and that there are no major games of that type coming out in a certain range of dates, so there is an opportunity. How do you turn this knowledge into a playable game?
- Combinations of several of these. For example, starting with **core aesthetics** and **narrative** at the same time, you can make a game where the story and gameplay are highly integrated.

Avoiding "Designer's Block"

- Keep a permanent collection of all of your ideas for games, mechanics, stories, and everything else. Look back through it from time to time to see if there's anything from years ago that you can use. Add to it whenever an idea occurs to you that you can't use immediately, but that you want to return to later.
- Think of something random. Try to find a way to integrate it into your game.
- Do some research. Learn about some aspect of the game in more depth, and you will likely find new ideas.
- Go back to the basic. Think of the formal elements of your game. What are the player goals? Rules? Resources? And so on. Note that you'll need to define these anyway in order to have a game, so by focusing on these one at a time it may give you new questions to answer.

Avoiding "Designer's Block"

- Formalized brainstorming, either alone or in a group. Some people swear by this method, while others say the results are questionable.
- Think critically about games. When you discover something that does or doesn't work in a game and you think you can identify the root cause as a "law" (or at least a guideline) of game design that is broadly applicable, write it down! If you don't know why, write *that* down too, and come back to it periodically until you find the answer.
- Play lots of games! But… play as a *designer* and not just a player. Don't just play for enjoyment. Instead, play critically. Ask yourself what choices were made by the designer of the game, and why you think those choices were made, and whether or not they work. Play games in genres that you don't like or have never tried, and try to figure out why other people find them fun. Also, published hint guides can be useful to read — they are basically glorified design documents that detail all of the systems of a game!
- And lastly, practice. Work on your own projects. The more you make games, the better you get at making them… just like any other art form.

Prototyping

- Remember, the more times you can iterate on your idea, the better the final game will be. Once you have a basic idea, the next step is to get it in playable form as quickly and cheaply as possible. That will leave you with as much time as possible to playtest and iterate

Prototyping "Laws"

Remember that the entire purpose of prototyping is to maximize the number of iterative cycles. Corollary: do everything you can to reduce the time required in each iteration. Now, consider that each iterative cycle consists generally of four steps: design, prototyping, playtesting, and evaluation. Of these steps, where can you save time?

- You can't really reduce the time it takes to design the rules of the game, without compromising your goals. You can't rush creativity.
- You *can* reduce time spent in playtesting by being efficient about scheduling and designing playtests to give maximum information for minimum play time… but there is a natural limit to this, and beyond a certain point you can't rush through playing the game.
- Evaluation doesn't take very long; you're making a simple yes/no decision of whether the game is "done" or "good enough" based on playtest results. There is little to be gained by rushing through this further.
- So, that leaves reducing the time it takes to create a prototype.

Prototyping Tips

- Build it as fast as possible. Cut corners. Make it as ugly and cheap as you can get away with.
- Minimize what you need to build. Only do what is absolutely necessary to evaluate your game. If you're trying to test out a new combat system, you do not need to build the entire exploration system. If you're making a card game, hand writing on index cards is faster to make than typing everything into Powerpoint, printing on heavy card stock, and cutting it all out manually. There is a time and place for making nice-looking components, and the early stages of game design is **not** that time or that place.
- Make your prototype easy to change. You **will** find problems in playtesting, so make it easy to adjust on the fly.

Moving Forward

- Once you have the core gameplay, and it *works*, then you can add new features. The temptation at this point is to add everything you originally thought of. Resist this temptation. Instead, add *one* new feature, and playtest again until the new feature works, or you have decided that it doesn't work and it needs to be abandoned.
- Why not add everything at once? Because every new thing you add may have some problems with it. If you only add one new rule and a critical game system becomes broken in playtesting, you know *exactly* where the problem is, because you only changed one thing. If you add ten new rules and something breaks, it's harder to isolate which rule (or combination of rules) caused the problem.
- Incidentally, this part is similar to programming: if you write code in small chunks and then unit test, it's easier to find bugs than if you write ten thousand lines of code between tests.

Documenting The Game

- In making an actual game, the next step after the physical prototype (once you're happy with it) is to **document** it. These documents do not have to be 500-page Game Design Bibles. They can be small sets of rules and design and playtest notes that you've accumulated as you went through the iterative process, but formatted into something that is readable and understandable by someone who has not seen the project before. This documentation will be valuable reference material for later, if you ever forget what you were doing. Sometimes you have to put an idea to the side for a few months and return to it later, and you can guarantee you will forget all of those details that used to seem second-nature to you when you were fiddling with the rules early on.

Dominion

Dominion

- Dominion is a card game
  - Theme - You are the leader of a medieval community seeking to gain the most land.
  - The theme is pretty thin in terms of game play
- The core mechanic is deck building

Dominion Setup

- Each player should take a deck consisting of seven copper cards and three estate cards. This deck should be shuffled.
- In the centre of the table place the three stacks of coin cards, the three stacks of green victory cards and the ten stacks of kingdom cards. These stacks form the market
- Each player should draw the first five cards from the top of their deck.

Dominion

- Determine a start player. Each player takes turns in succession.
- Turn Overview
  - A) Action phase – the player may play an action card from their hand
  - B) The player may use coin cards from their hand to buy a card from the market.
  - C) The player discards all cards (played and in hand) to a discard pile next to their deck and draws five new cards from the top of the deck. If there aren't enough cards in the deck, shuffle your discard pile to create a new deck.

Action Phase

- Action cards are cards that say Action at the bottom
- To play an action card place it down face up in front of you and do what the card says to do
  - This may give you more actions you can use, more coins to spend, allow you to buy more than one card, etc.
  - You must fully resolve the card before playing another

Game End

- The game ends at the end of any player's turn if
  - The supply pile of Province cards is empty
  - **Or**
  - Any three supply piles are empty
- Scoring
  - Each player puts all of their cards in to their deck and counts up the total of victory points
  - The player with the most victory points is the winner.

Design Exercise

- In your groups
- Come up with half a dozen game concepts based on the *mechanics* of Dominion
- Come up with half a dozen game concepts based on the *theme* of Dominion