

Rules of Level Design

Rule 1: Maintain the Vision

Maintaining the vision means that once the core idea of a game is formulated, stick with it for the rest of the development. It is okay to develop new ideas along the way during development as long as it builds upon the original idea. The game would suffer otherwise because then it would feel unfocused and all over the place. Nearly every game that is considered good sticks with this rule. Pretty much any Mario game is an example of this. They have a central mechanic or gimmick and the entire game is built around it, making them focused and fun. The last game I remember that I think doesn't follow this rule and suffered for it is Bayonetta 3. I haven't played it myself, from what I saw and heard from reviews and such, the game focuses too much on gimmicky fights and other things that detract from its core combat. The core combat is fun, but you fight a lot of giant enemies rather than regular enemies that you can combo, and the new gameplay elements sort of discourage you from engaging with the core combat to begin with because of how powerful they are.

Rule 2: Make it Unique

Making it unique means to mix ideas together to come up with something fresh. Coming up with a truly unique idea is very difficult, so in order to make a game feel unique and fresh, mix different ideas together to create something that can be considered new. Many games that can be considered revolutionary followed this rule. One example of this rule that was brought up during class was Fortnite. The battle royale genre already existed before it became a battle royale game, but it became extremely popular because it added a ton of personality, something that most other battle royales at the time didn't have. Any game that doesn't follow this rule can feel stale or uninspired. One of the biggest examples of this from what I remember is Shenmue 3. The game came out 19 years after Shenmue 2 did, and it barely made any upgrades to its core gameplay loop, making it feel horribly outdated and uninspired.

Rule 3: Have Fun While You Work

If you have fun while you work, your overall productivity improves greatly because you become more motivated to work. It can also mean that you are passionate about making the game. Whenever I work on games, I try to be creative with the design and the mechanics because then I become more interested in making it and I have more fun doing it. This leads to me making games that I am more proud of by the time I finish them. Pretty much any game that is considered good and fun was made by people that had fun making them. Take any 3D Mario game for example. Each one is built around a central mechanic and the developers expand upon the mechanics in fun and unique ways. Every time, it is clear that the developers had fun making them. On the opposite end, you could consider any game that is soulless, bland, and purely made to make money to be created without much passion put into them. Consider it bias, but I think pretty much every sports game made by EA is made this way because they know they will print

money anyways. This results in what is essentially the same game every year and nowadays they release with tons of bugs because they don't bother to fix them before release.

Rule 4: Pre-Production is Not Optional

You're supposed to create a solid foundation for what you are going to make before you actually begin making it, or else it will lead to complications later down the line and you run the risk of making something that is poorly designed. Pre-production includes things like paper maps, feature lists, style guides, design documents, anything that can contribute to establishing the design of the game. A good example of a game that I think had a good pre-production schedule was Devil May Cry 3. After the train wreck that was Devil May Cry 2, the developers wanted to make a new game to bounce back from their failure. What they created was a game with a satisfying and super deep combat system, memorable and well-written characters, and overall good level design. All of which was formulated and carefully thought out in pre-production. Speaking of Devil May Cry 2, that game had next to no pre-production. The team was extremely unorganized and the only thing they finished before development was a single attack. A new director came in 4 months away from release and managed to organize the team to make a game that could be sold. Needless to say, this left no time for pre-production and it led to a game with a ton of poor design decisions. That director came back for Devil May Cry 3, so the reason why the game was bad was because of the amount of time they had left.

Rule 5: Learn the Design Palette

This means that you need to know what art and gameplay elements you have and how you will design your level around them. The palette is determined in pre-production, and it has to be manageable enough so that the artists and programmers can implement it. When I took Game-A-Week, I had a specific set of assets that I used for almost all of my games, and I designed those games with those assets in mind. I changed up the assets from game to game to make each game unique too. Establishing the palette during pre-production helps make the development run smoothly. A level that I think establishes its palette very well is the Forest Temple in The Legend of Zelda: Ocarina of Time. It has a very specific atmosphere with its texturing, lighting, and sound design, and the gameplay elements help make it stand out too. Most of the enemies you will fight in it are Deku Babas and Skulltulas, you obtain the bow in this dungeon and you use it for various puzzles and combat scenarios, and there is a primary goal in the dungeon where there are four special Poes that you have to defeat to reach the boss, which you use the bow for. The palette is well established and it helps make the dungeon flow very well. If you don't establish your palette in pre-production, it can lead to a rough development cycle and it makes the end result look messy, unfocused, and unfinished. I'll make fun of Devil May Cry 2 again for this. The game had next to no pre-production because the team was very unorganized before they actually started development. This resulted in bland enemies, sluggish movement, and guns being overpowered. Not to mention the story as a whole being very uninteresting.

Rule 6: Reveal Assets and Mechanics Carefully

It's important to prevent overflowing the player with information at the beginning of the game, or else they might lose interest really quickly. Instead, set up each asset and mechanic like there is a mini goal to accomplish with each one to keep the player engaged. Keeping a constant stream of these is called the "bread crumb" approach. Mastering this rule will make the learning process of anything in a game fun and effective. Pretty much every Zelda game follows this rule whenever you obtain a new item. The dungeon you obtain the item in gives you a stream of puzzles and combat scenarios for you to overcome, and each one also teaches you how the item works and what it can be used for. This way, once you clear the dungeon and you use it in the overworld, you can unlock new paths with it. This makes the process fun and rewarding. In a game like an RPG, where there are tons of mechanics, it is very easy to break this rule when you want to teach the player how things work as soon as possible. I haven't played it myself, but I heard that the beginning of Xenoblade Chronicles 2 suffers because of this.

Rule 7: Interaction IS Level Design

You have to think about how to make the level fun to play through by encouraging thoughtfulness and supplying goals for the player while motivating them to accomplish said goals. Dungeons from every Zelda game before Breath of the Wild were structured with this rule in mind. Each room has a puzzle for the player to solve, which helps them progress through the dungeon. The dungeon has a new item for the player to obtain, and once they obtain said item, they can navigate through the dungeon more by solving puzzles that previously couldn't be solved without it. Finally, there's the boss fight at the end, which the player has to figure out how to defeat. There is tons of interaction in Zelda dungeons, which makes for overall good level design. An important point for good level design is that you should avoid tons of "lock and key" barriers that make the levels straight forward and boring, almost like they're holding your hand. It is very easy for tutorial levels in games to fall for this.

Rule 8: Cater to Different Playing Styles and Abilities

Every player is going to approach a level differently from other players, so offer different options, challenges, and goals that cater to each player's playing style. You can even offer less rewards if players choose to take the easy path, but let them know what they are missing out on to encourage replayability. Devil May Cry is the first thing that came to mind when I saw this rule because the entire series basically revolves around it. In every game, you play as Dante. In some games, you play as him throughout the whole game and in others only some of the time. But in every game, he has a massive arsenal of weapons and abilities for the player to use while fighting enemies. The enemies are generally designed to cater towards every type of playing style, whether it's spamming guns from a distance or juggling them with melee weapons. However, if you choose to play it safe and lame or even outright avoid enemies, you won't get

that many points, and your letter grade at the end of the level will go down. The letter grade encourages replayability, as it makes the player want to go back in and get better. The entire series heavily encourages player expression, and it welcomes (almost) all playing styles. Not every game genre does a great job with following this rule though. Visual novels and story-driven adventure games, like Ace Attorney, don't really have different playing styles per se, since you're just reading text boxes and paying attention to the details. There can be some expression in the investigation sections of cases with where the player wants to go, but they ultimately force the player to follow a very specific path anyways. Also, there isn't really an incentive to replay the games again unless you really like the stories they tell. Not following this rule doesn't make games like Ace Attorney bad, far from it, it's just that they can't follow this rule very well because of the nature of their gameplay and structure.

Rule 9: Challenge the Player

This doesn't mean make the game difficult, although you can still do that. This means you need to give the player a challenge to overcome and it needs to be satisfying to overcome. If you want the player to fight an enemy for example, the best way to make the challenge interesting and fun is to make it realistic with AI that a player can understand. A good example of this is with pretty much every Vergil fight across the Devil May Cry series. Vergil fights and moves in a similar way to Dante, so he has different attack patterns that mimic what players can do if they played as him. Not only does it make the fight more realistic and tense, but it also allows the player to analyze Vergil's attack patterns and how to counter them. This is one of the many reasons why every Vergil fight in the series is remembered as some of the best boss fights in the series. This rule can be difficult to follow correctly, since you need to strike a balance between difficulty, fun, and satisfaction upon overcoming it. If this isn't balanced correctly, the challenge quickly becomes frustrating or boring to complete. I think an example that doesn't follow this rule is a boss in a JRPG that creates a difficulty spike. If you were just playing through the game and suddenly you can't overcome a boss, you have to backtrack and spend hours grinding EXP to become strong enough to defeat it. This can be a frustrating process because defeating weak enemies over and over again is boring, but you have to do it to beat this boss.

Rule 10: Balance the Difficulty for the Median Skill Level

This can be a difficult rule to follow because you have to strike a balance in the difficulty so "good" and "bad" players enjoy it. A key point to help you strike this balance is to understand your target audience. I think most Mario games follow this rule pretty well. Both new players and veterans will want to play these games, so they cater to both kinds of players. The levels themselves are easy to navigate and the goals are simple to understand, as they just need to reach an object to complete them. This makes it fun for newer players to play, but veterans can also have fun by going through them as quickly as possible, which is why Mario games generally have huge speedrunning communities. Mario games generally do a good job balancing difficulty for the median player. However, one of the biggest outliers that break this rule is Super Mario

Bros.: The Lost Levels. This is a sequel to Super Mario Bros. and it was specifically made for the hardcore players. However, this game is very difficult, even for people that are skilled at Super Mario Bros. This can turn a lot of people away from this game.

Rule 11: Be Humble

This rule ties closely to Rule 1: Maintain the Vision where you need to stick with your original goal or else the level will look unfocused, but this rule basically tells you to be flexible about it. If your idea is critiqued and other people want to input their own ideas as to how to make it better, you should take them into consideration instead of doubling down on your own ideas. Doing this can heighten the quality of the final product. Many fighting games nowadays try really hard to follow this rule. A small example I know of is a fighting game called Melty Blood: Type Lumina. The game features auto combos, which many veteran players do not like and it was one of the more criticized parts of the game. So the developers decided to add a toggle for whether the player wants to use it or not, and everyone loved this addition. One of the more infamous examples of a game I know about that doesn't follow this rule is Paper Mario: Color Splash. Its predecessor, Paper Mario: Sticker Star, received a ton of criticism for its gameplay direction, and I don't know of a single person that likes the game. Color Splash had the chance to take the criticisms in mind and change the gameplay, but instead they decided to double down on it, and as a result, it was near universally hated too.

Rule 12: Play Test, Play Test, and Play Test Some More

Play testing is extremely important, not only in level design, but in game design as a whole. It gives developers many opportunities to find bugs to fix and receive tons of feedback on what to improve. Beta tests are one of the more grand forms of playtesting, and at the end of a beta test session, players are given a survey to give their feedback on the experience. Many games do this nowadays, from first-person shooters to fighting games, and their quality generally heightens as a whole. A classic example of a game not following this rule, if I remember correctly, is God of War 1. I haven't played it myself, but I remember there being a part of a level where you have to climb a wall with moving hazards and it was the cause of frustration for many players. Turns out that part of the level was never actually playtested, so the player frustrations were justified.

Rule 13: Learn What Players May Bring to the Fray

In order to make a truly great level, it has to accommodate for multiple different scenarios to make it fun for every type of player. Good players, bad players, overprepared players, risky players, and so on need to be satisfied with the level and how it adapts to their playstyle. So it is important to analyze how they play and adjust the components of the level itself to suit all of them. I know most levels in Devil May Cry 3 handle this pretty well. In that game, you have a wide range of weapons and abilities to choose from, but you can only equip 2 guns, 2 Devil

Arms, and 1 style at a time. Many levels have specific enemy arrangements that allow the player to fight them however they want, allowing for all sorts of playstyles with the limited weapons the player can bring to the fray. Games that don't follow this rule usually end up either being specifically designed for one type of playstyle and it becomes too difficult for everything else, or it becomes too easy for everyone because it lowers the difficulty for everyone to play through it. Some levels in Devil May Cry 3 also suffer from this issue, particularly the boss fight against Arkham near the end of the game. There are many problems with this boss as a whole, but there are points during the fight where he will disappear and send out a swarm of eel-like things at you. Because there are so many of them, using weapons that strike enemies one at a time don't work well here. Instead, you are encouraged to use weapons that hit multiple enemies in an area, like the electric guitar Nevan or the rocket launcher Kalina Ann. This means this part of the boss fight is specifically catered towards one playstyle, and it contributes to the overall frustration of fighting Arkham.

Rule 14: Pay Attention to Level Pacing

In order to achieve good level pacing, you need to create a series of curves of tension and relief, and the frequency of these curves determine the level's "speed". When someone describes something as fast paced, that means events are happening very quickly and in quick succession of each other. It's important to establish the speed of the pacing of your level for both gameplay and narrative purposes of your level. Take the bombing run from the beginning of Final Fantasy 7 for example. It starts off a little slow, where you sneak into the reactor and pick off the enemies a few at a time. As you get closer to where you need to plant the bomb, there is more security and the situation gets more tense. Boss fights also help with raising and lowering tension. Finally, once you plant the bomb, there is a time limit and you have to escape from the reactor as fast as possible. This is where the tension of the level is at its peak. Finally, once you successfully escape, all the tension goes away because you are now out of danger. All of this gives proper pacing to the level because not only does it start off slow to introduce the player to the game, but it gets tense towards the end to make it exciting. Not to mention that this fits within the narrative as well. Levels that aren't paced very well usually only have one or two curves of tension and relief, which makes them either end too quickly or drag on for too long. I can't think of any examples off the top of my head, but most RPGs generally have very slow pacing, and it can get boring very quickly for many players.

Rule 15: Fulfill Player Expectations

When designing a level, make sure the mechanics make sense. You don't want to create scenarios where something works one way in one level and then suddenly it works a different way in a different level. It would confuse the player and frustrate them. If you do want to reveal an unexpected game mechanic that's completely different from the rest of the game, make sure it is important for your level. In Zelda: Link's Awakening, there is a dungeon (I forgot which one) where you have to progress through it by destroying four pillars to lower a floor. This is a

mechanic that is only present in this dungeon, but it makes sense once you think about how it works in this context. Once you destroy all four pillars, the floor above your current one falls, as expected, and you can progress through the dungeon. It's kind of hard to think of examples that don't follow this rule, but I'm sure they exist.

Rule 16: Reward Player Imagination and Efforts

Make sure everything in your game has a purpose and utilize them as much as you can. This will create more potential solutions to the end goal for the player to find, and the more potential solutions there are, the more satisfied the player will be finding them. This applies to alternate paths to the end goal and to gameplay flexibility. Nearly every Devil May Cry game is a perfect example of rewarding player creativity in combat. The combat systems in these games are extremely deep and complex, allowing for tons of opportunities for players to learn new tricks to fight enemies more stylishly and effectively. As a personal example, I found a trick in Devil May Cry 3 where you can cancel the end lag after firing the sniper with Royal Guard. Doing this trick over and over not only deals a lot of damage, but it also racks up a lot of stylish points. One time I got to SSS rank just by doing this technique, and it felt good when I reached it because SSS rank is hard to reach in this game. In regards to games that don't follow this rule, a common mechanic that players can feel like is pointless is fake choices in an RPG. There could be cases where you are speaking to someone and then you are given a few choices in dialogue. However, no matter which one you choose, all of them end in the same result. There are some games that add these in to poke fun at them, like Dragon Quest, but in most cases, this just feels pointless and it makes you ask why it's there in the first place.

Rule 17: What's the Point If There is No Difference

While it is a good idea to give players choices, as per Rule 16, you also need to make sure each choice offers something different. If every path is the same, with the same challenges, rewards, and end goal, then there isn't really a point to making them different paths in the first place. One of my favorite examples of a game that follows this rule is The Stanley Parable. This is a game that is all about making choices. There is a narrator that tells you which way to go to follow the story, and you are constantly given different paths to follow to deviate from the intended one. Each path offers different dialogue and opportunities for different endings. For examples that don't follow this rule, I talked about RPGs that give you dialogue choices that don't matter because they do the same thing anyways in Rule 16. Sure, you can be given different dialogue most of the time, but it doesn't change the story in any way. At worst, you would probably get a single new line of dialogue and then the rest of the dialogue is the same.

Rule 18: Try Not to Lead

Rather than having one set path for the player to follow, create multiple paths and persuade the player to follow a set path. This then allows the player to follow the alternate paths if they so choose, and they may get rewarded for this too. This is an important rule to follow to design tutorials, because then not only does the tutorial feel fun, but it also blends seamlessly with the rest of the game and it doesn't feel like a tutorial. Again with *The Stanley Parable*, the narrator suggests you follow a set path for the intended story, but you are also given other options to follow. The "tutorial" of the game is during the walk through the office rooms and then you get to the room with the two doors. This doesn't feel like a tutorial because it blends in with the rest of the game and there are still plenty of alternate paths for you to follow here. Some games don't follow this rule, but sometimes that is because of the game's overall design. Every game in the *Ace Attorney* series is very linear, and you are not given much room in regards to choice or alternate paths. Instead, you are simply taught how the game works and you follow the story from there. If anything, the "choices" you are given usually pertain to the evidence you present to make sure you are paying attention to the story you are reading.

Rule 19: If the Player Didn't See It, It Didn't Happen

It's important to design your levels so that players will know what is happening based on what they witness in the level. Don't put all of the important information in dialogue or assume that players will have the logical deduction skills to determine what is happening, because a number of them won't. Designing your level with this pretense will make your level confusing to most players. Basically, if you design a part of your level that only you will understand, that's bad level design. It is also important to consider where the player's attention will be focused during each moment in the gameplay. If a player is fighting enemies, all of their attention will naturally be focused on the enemies in front of them. Many 3D action/adventure games have a lock-on feature that rotates the camera to keep the enemy in view to help the player stay focused on them, as having to constantly rotate the camera to see them and then getting backstabbed by them would be a frustrating experience.

Rule 20: Take the Time to Make It Better

This rule essentially enforces the notion of polishing as much as possible. Keep adding details and refining the gameplay to make the experience as enjoyable as possible. It is very obvious when a level is thoroughly planned out and sculpted and when a level is hastily made to achieve the bare minimum for a passable level. As a bad example, just look at any level from *Devil May Cry 2*. About 99% of that game was made in the span of 4 months, and it is really easy to tell from every aspect of the game. The level design is no exception. All of the levels are filled with huge, empty areas and there are some timed sequences that are so tight that it can be frustrating to play through. Not to mention how many of the enemies further deteriorate the level design by making them more painful to play through. On the flip side, look at other *Devil May Cry* games, especially 3. All of the levels take place in a huge tower, and many of the levels allow players to reenter rooms that they had to go through in previous levels. In many cases, doing so will reward

the player with red orbs or enemy encounters to earn more style points. Attention to detail like this rewards players that keep an eye out for it.