

Game design Principles

Progression Systems, Power creep and Enemy Design

Progression systems



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- Recall Skinner boxes



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- In a lot of games skinner box mechanics are implemented using a progression system.



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- Recall Skinner boxes
- In a lot of games skinner box mechanics are implemented using a progression system.
- Similarly (in these terrible games) the progression system is there solely as a skinner box.



When should you use a Progression System?

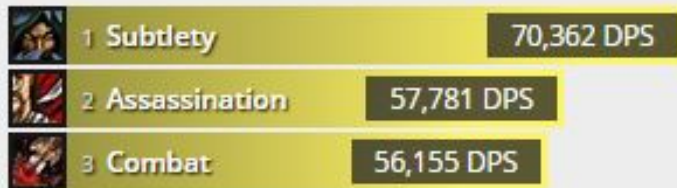
- When it adds a long term strategic component.



Long term strategic components

- Ex. Having to choose between skills on a skill tree.
- Having to test differences ingame, such as light armour + more crit on fast attacks vs heavy armour and more damage on heavy attacks.
- No route should be a clear winner, and no route should excel at everything.

Boss DPS (1 Target)



Splash AoE (3 Targets)



Long term strategic components

- It should be rewarding to find a build that works well.
- It should be easy to backtrack if the player made a mistake, but for a fee. You still want to reinforce better decision making.
- Examples of great build based progression systems are Dark Souls, Pokemon and World of Warcraft. In saying that, These games aren't all perfect.



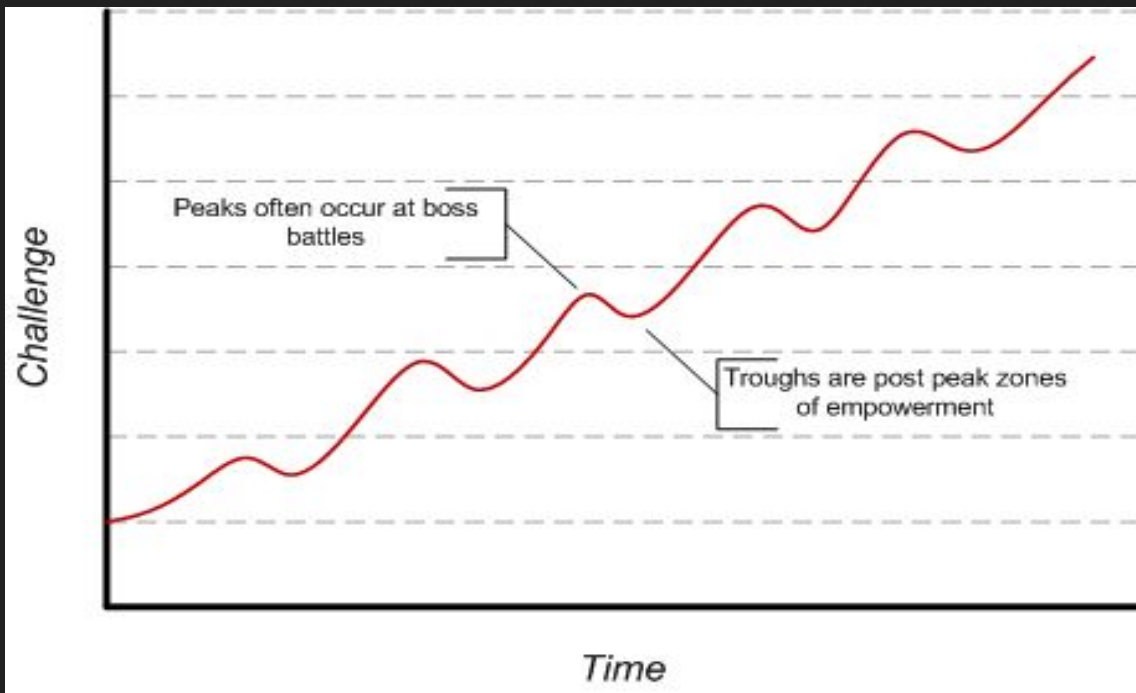
When should you use a Progression System?

- When it allows you to introduce a self regulated learning curve.



Progression

- Introduce elements one by one.
- Provide a challenge based around each element.
- The ability of the player regulates the learning curve.



Ideal side effects

- Ideally you want your progression system to reward the most engaging form of play.
- The most effective way of progressing should not be the easiest thing to do!
- Learning combos or using a different set up depending on certain fights should be interesting and inviting, not effortful and unrewarding.
- This ties back into allowing flexible builds.



Tieing progression systems to character progression

- Although progression systems may be an already obvious form of character progression, think about how one might build their character to be a healer, and how you could use the progression system to add certain visual or dialogue cues into the gameplay.
- An example might be, for every few points in strength, increase the size of the character by some amount.





villains

Villain design

- There are two main types of villain design:
- Mechanical
- Narrative



Mechanics Villains

- Mechanics villains are there to influence gameplay.
- Mechanics villains are the cause of the mindless hordes of enemies you come across.
- You should use a mechanics villain in order to give your player a reason to play through all the content you put in front of them.
- In most cases, they are the end boss.

Narrative villains

- Narrative villains are much deeper.
- A narrative villain should be for the story.
- The main question you should keep in mind when creating a narrative villain (and where most games fall down) is “what is their motivation?”.
- When creating a narrative villain the goal is to be able to have your players understand the “why”.
- Are they a bank robber? Then they are probably robbing the bank because they have some kind of financial gain. Not solely to annoy the people who’s money they stole.

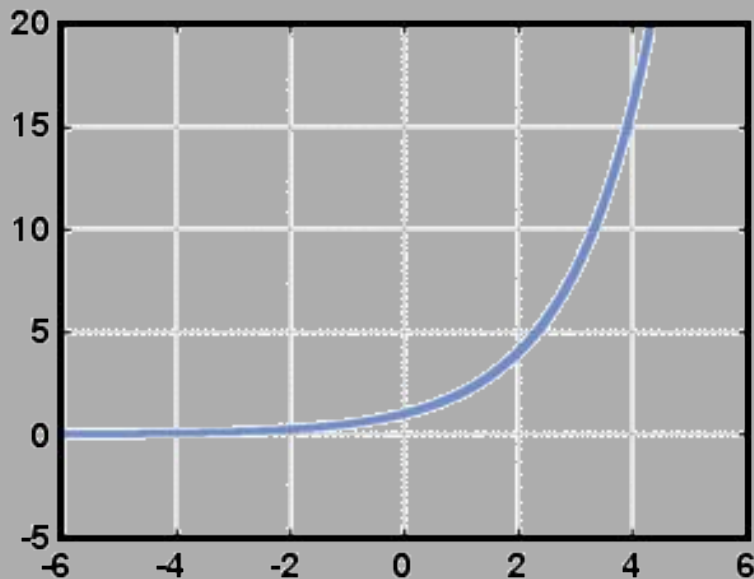
Force of nature villains

- A kind of narrative villain. however they do not follow all of the same rules.
- Usually they are beyond comprehension. What they do is not intended to be understood by humans per se.
- These are usually gods, or aliens; something mysterious that we can't possibly comprehend.



Power creep

“**Power creep** is the gradual unbalancing of a game due to successive releases of new content. The phenomenon may be caused by a number of different factors and, in extreme cases, can be damaging to the longevity of the game in which it takes place.



How power creep affects games negatively

- Causes old content to be outdated
- As a result, it causes less playable content
- Punishes players who haven't "Crept up with the jones' " (please laugh)
- As a result they might quit, since all their hard work is obsolete
- You may run into development problems on the technical end.



Preventing power creep

- Do not simply improve numerical values.
- Use incomparables.



VS



Incomparables?

- A different currency might prevent power creep in an economy (inflation).
- Using different styles of gameplay helps immensely, as for example you can't argue that a stun might outweigh a damage increase. It would be a matter of the particular situation.
- It is important to be careful of combinations of features. For example, a debuff on an enemy that increases damage taken might multiply onto existing damage-taken-increase-debuffs and cause some exponential gains in damage.



Let's take a case study:

- Base damage on weapon at max level: 2000 dps at an attack speed of 1 attack per second.
- base damage is 2000 + armour increases of 1000. Critical damage is a base of +100%.
- Releasing new items that increase critical damage by 50% each, you can wear 2.
- Critical hits are now worth $(2,000+1,000) * 3.00 = 9,000$ per hit.
- An attack speed potion is a good idea. Let's release one for 20%. It increases attacks per second to 1.2, rather than 1. it also changes the dps ratio to 1.2 attacks per second, meaning the resulting damage increase is actually exponential, assuming your skills use a dps calculation.
- Each hit now makes 2,400 damage. at one hit every .8 seconds. This coupled with crit modifiers will make your attacks hit 10,200. and they hit more often.
- Now imagine what would happen if you had a few more of those 50% extra damage buffs, or attack speed buffs.
- The base damage per second for the following character, with no modifiers(buffs) is around 200k.
- <https://www.youtube.com/watch?v=yK9ppjwUVU>

Shadowstab+57

Uses 20 energy

Range: 50

Instant

Inflicts 349.3% main hand weapon DPS + 0.20 x Dexterity physical damage to the target, plus an additional Bleed with 133.3 damage every 2 seconds for 10.0 seconds. With each hit you have a chance of recovering 10.0 energy. (The effect of recovering energy cannot be triggered again for 3.0 seconds)

Spectacle Creep

- Similar to power creep, though is to do with the storyline (and/or artwork)
- In general a game or movie starts out with a small enough plot.
- Let's take Call of duty as a franchise.
- At the end of modern warfare you get to see a nuke being dropped and then die from your wounds.



Spectacle Creep

- Cue Modern warfare 2, where Russia decides to invade the American eastern seaboard and occupy Washington DC. Which is already borderline insane as it is, but the lunacy doesn't stop there.
- You play as a Russian terrorist and massacre a few thousand people at an American airport, 'cause sure why not.



Spectacle Creep

- Cue Modern warfare 3 and new york has been mostly destroyed.
- America blatantly destroys the eiffel tower.
- And to top it all off, the big makes-you-feel-bad moment is you being a father on holiday filming your daughter being gassed to death. And then dying as well

So who did it best?



Preventing spectacle creep

- Create spin off stories or characters. Players(and audiences) often love to hear about stories that happened in the their favourite universe. Not necessarily bigger or more important ones, but just more lore, deeper characters etc.
- *The Hobbit* and *The Lord of the rings* did this very well.
- This approach allows for a clean slate as your spectacle, while still delivering on the franchise in a sense.