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University of Applied Sciences

Kursbezeichnung: Bachlorarbeit
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Hochschule Macromedia Freiburg
Game Design

Bachelorarbeit zum Thema:

Wiederspielwert in Rogue-like/Rogue-lite Games – Was motiviert Spieler, das gleiche Spiel wiederholt zu spielen?

Vorgelegt von:

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Abgabedatum: 08.07.2022

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I. Abstract

This thesis is a dive into gaming at a subconscious level, to examine what actually drives people to play games and how designers who are looking to keep players engaged in their game can use certain methods to accomplish this.
Of course, not every game is going to be the using the exact same method and there are strong differences between genres.
There are heavily story driven games, sometimes jokingly referred to as “walking simulators” that rely on the excitement of their story and the atmosphere created while gameplay is rather limited and mostly consist of walking around and picking up things. Then there’s action games, where the story should not interfere with gameplay too much, lest it bores the player with actual reasons why they need to blow up things.
There will be particular focus on the roguelike genre, as well as the related rogelite sub-genre and how this specific design concept can motivate players. Considering the structure of these genres, it is necessary for them to have high replay value, or else players will lose interest or think they have seen all there is after a short time. We will examine how they can achieve this and exactly which mechanics the most well known games of the genres implement that have gained them such vast praise. Working at a games studio in the midst of development on a roguelike game, the findings will be gathered and applied to create a concept for an entire stage within the game, including enemies, a boss, room layouts and mechanics to strengthen the replay value.
Games have been around for quite a long time, some dating back as far as 3000 BC and there is already plenty of findings as to why humans prefer to play games (Carr, 2017). To have fun, many would say, but spoken more scientifically, people like to both be appropriately rewarded for their actions and to feel competent at the activities they chose to do. This process guides all of our lives, as humans almost require a regular or steady dose of dopamine.
Building a system in which this can happen is not an easy feat, game designers have to teach players their game in a way that never feels unfair or incomprehensible. This teaching process is crucial to actually allow the player to feel competent, to feel like they accomplished something by their own merits. This means striking a difficult balance between teaching and challenging, between story and gameplay.
Procedural generation of environments, enemies and items, systems that open up

the game over time and do not overwhelm the player with options in the beginning and mechanics that hold reward even when a playthrough fails are the backbone of roguelike games.
But in the end, a game needs to know what its core gameplay is and accordingly add systems that support that and most importantly, convey clearly to players what the game is about in order to not disappoint or bore them.
Even though it is a large term, balancing of a game is also part of this, as it directly interferes with the learning process when falsely implemented, because players feel treated unfairly when confronted with elements, they do not feel prepared for or that ignore preceding maxims.

II. Table of contents

III. Preface

Video games have accompanied me from an early age. I was always fascinated with the worlds and adventures those games were able to create.
Especially the rules systems each game implements and what they allowed players to do and searching for ways to test and stretch those rules, revealing their exact nature is something I find fascinating.
Having invented some games of my own and being often confronted with the question I chose for my thesis; it was an easy fit.
What motivates people to play games and sink often considerable amounts of time into continuing to play them? Why do we play them in the first place?
At the same time, as someone who enjoys playing and has played many games over the years, it was also very interesting to me finding out which methods and mechanics game designers have used to keep me interested and become (sometimes very) invested in their games.
Over the years, my taste in games has somewhat manifested and there are certain genres I avoid and others I play the most out of all.
A strong favorite of mine in recent years has been the roguelike genre, as I have played many of its most prominent representatives and am intrigued with some of its unusual core gameplay mechanics.
Working at Sticky Stone Studios in Freiburg and writing my thesis there, I am part of the development of their game M.O.O.D.S., a roguelike action adventure, where players control a so called “mech”, a robot who shoots their way through hordes of hostile robots, collects weapon upgrades and equipment and faces off against bosses.
I was able to gain great insight into the balancing and creating of a roguelike game and was therefore determined to include it in my thesis.
The following text should satisfy the interest of anyone familiar with gaming and the roguelike genre in general, but also to anyone curious as to what makes humans play games or rather video games and to learn something about a specific genre.

IV. Main Part

1. Introduction: What are games?

Before getting into the details about game mechanics, game genre's and replayability, we need to define some basic terms. Mainly, what are games and why are so many of us drawn to them?
This is not an easy question to answer, and there exist many meaningful and scientific theories about that very subject.
Koster (2013) put together some famous names and their definition of a game:
Chris Crawford sees them as a subset of entertainment limited to conflicts in which players work to foil each other's goal, one of many leaves off the entertainment tree.
Sid Meier is quoted defining them as "a series of meaningful choices".
Ernest Adams and Andrew Rollings narrow it down to "one or more casually linked series of challenges in a simulated environment".
Katie Salen and Eric Zimmerman say that a game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome (Koster, 2013, p.14).
Another interesting definition is that "[…] games are control circuits that organize the game world (according to a special social contract) with their (joint) players and establish motivations in an own space, a "Magic Circle" or a (new) game world." (Suter, Kocher and Bauer, 2018, p.8) or "Games are specifically motivating control systems within a defined framework." (Suter et al., 2018, p.22).
A definitive definition has not been found yet and while the core aspects are similar, they vary in specific areas, which is rather fitting for the modern gaming environment, which evolves and intertwines so much that it eludes a clear definition.
All things considered, the most common definitions include that players engage in an activity that is in some form based on rules or an agreement, forming the so-called "magic circle" where games can take place in a suspended reality (Linser, Ree-Linstad, Vold, 2008).

2. Why do we play games?

Either way, most people would find common ground as to what counts as a game and what does not or may be a fringe case. There's usually another term that goes hand in hand with what games are supposed to be: fun.
People want to enjoy their gaming, if that isn't the case or ceases to be the case, they stop playing and look for something else. But when are we really "enjoying" a game? Many studies have found different reasons for this, one found that when "having fun in a videogame" is looked at through the lens of motivation, there are three different components: Achievement, which includes a want to advance in a game, be interested in the rules and systems and the want to compete. Social, which is the want to form connections with other and immersion, which is identifying with an avatar and wanting to escape reality (Pang, 2017).
Humans in general are inherently motivated to repeat activities when they are rewarding to them, they enjoy feeling competent.
This means, in part, that the systems and rules in a given game have to interest the player and lure them to understand them or challenge them by expanding on them. A balance has to be found between a challenge and fairness, which is often called "flow". Flow happens when a clear challenge is present but at the same time is not too hard to stop being fun or too easy that it becomes boring (Pang, 2017).
As Raph Koster puts it: "Games that are too hard kind of bore me, and games that are too easy also kind of bore me. (Koster, 2013, p.10)".
Naturally, different people are getting individual experiences from games and therefore require different motivational methods, as a person looking to blow lead and blow up the world will have a harder time grasping or being motivated by a puzzle game.
Because of this, we have genres and target groups, but within those, tailored to the respective genre and preferred target group, we could say that "The player needs incentives, and the rule system has to provide them for example in the form of a reward with gold coins, a higher score or an extraordinary experience." (Suter et al., 2018, p.24).

3. Motivation in Dark Souls

After demonstrating the problematic aspects in motivating players we shall examine some methods implemented in a famous and successful game.
So, let's have a look at an example: *Dark Souls*. It is a very well-known game that even has an entire genre named after it, the so-called "soulslike" games. It's an action roleplaying game where you fight through enemies and bosses, find loot, level up and also die a whole lot. These games are known for being hard to beat, having some notoriously hard boss fights and areas in any of the series.
The dying a lot part is actually intended to happen, even though killing players over and over again might seem counterintuitive and on top of that, if you do not manage to get back to the place you died, you lose all the currency you had before dying, which is used for levelling up and upgrading equipment, so that can hurt a lot. Here's how they balance out the frequent and sometimes frustrating deaths of players:
The game is fair. When you die, most of the time, it wasn't because you had no say in it, but you made a mistake and paid dearly for it. This is very noticeable in boss fights, as when you first encounter a boss, he is going to overwhelm you a bit and might seem impossible to beat. But you'll soon notice that all attacks can be avoided if the dodges and movement are correct and each enemy has animations and timings where the player can punish them.
That means when you die, be it because you mismanaged your stamina, pulled too many enemies at the same time or thought you could get in one more hit, it will be your fault, and not the game's.
The game rewards learning and tenacity. Going right back to boss fights, with each failed attempt, you learn a little something about the timings and openings and this is directly trackable by getting closer and closer to deplete a boss's health. When you finally manage to do so, that fight will probably have looked rather virtuous on your end, with well-timed dodges and tactical positioning, which feels immensely rewarding. Feeling fair to a player and rewarding learning certain patterns is something of the utmost importance in keeping players engaged, as we will discover more thoroughly later.
The same can be said about the level areas, where with each death you manage to advance further until the sweet reward of a new save point is reached.
The game gives you options. That rundown of a boss fight given earlier might not happen like that every time. Some players just have a hard time with certain

challenges and the progress might not be made in a noticeable way, which leads to frustration. So why not go to another area and have a look around there? Get some new items, level up a bit and try again later? Players also have the option to farm enemies to reach a higher level or revisit older level areas because some powerful items are very well hidden. This means that potential frustration can be avoided and even lowered if the player so chooses (Fulltime Games, 2016).
All of these smaller mechanics are happening under a surface that already boasts an amazingly atmospheric setting, a dynamic and deep combat system and great level design mean that while motivating the player is very important, the mechanics doing so can only do so much if either the player just isn't interested in the experience, or the game as a whole has major flaws.
Now, since the possibilities of motivation in games are plentiful, we will first take a look at some general and well established ones and then move on to examine a specific genre and how games falling into that category have found ways to keep their audience engaged.
That genre is "roguelike" and their offspring "roguelite".

4. Player Motivation and Replayability in General

Keeping players immersed in your game and wanting to replay it over and over is the dream of almost every game designer. Especially since it is not an easy feat, considering the amount and quality of competition in the field.
Replayability is when the core gameplay and mechanics of a game have such an amount of variance and rewarding systems that players actively return to play the game and still find enjoyment even after having played a given game a considerable amount of time (Design Docs, 2020).
Now, not every game wants to be replayable and that has no bearing on whether the game is good or bad. But in games that want to replayable, a couple of tactics have become well established. To break these down, we will look at Story, Game Mechanics and Player-created Content Elements separately.

a. Story

Let’s start with Story:
An excellent story in itself can create replayability the same way people will read a book multiple times, but since that is hard to recreate reliably, game designers have found other methods. One would be to include branching paths into a game, which means there are several points in which the game forces the player to choose an outcome that excludes some other possibilities from happening, making them wonder what would have happened, had they chosen differently. This can be done through dialogue options as well and in the best cases carries through the entire game where multiple endings await players, and their choices play a significant role in the resolution of the story. In *Dragon Age*, each main story mission has a certain point where you are forced to side with either of two opposing factions. Do you aid the down-trodden elves in their defense against the werewolves or do you side with the spirit of the woods and her wolves, who make compelling arguments to wipe out the elves? Your choice not only affects your relationship with your party members but comes back in the finale when you besiege a fortress and either powerful elf mages or a horde of werewolves come to your aid.
On the other hand, players will find out if you are only pretending to have them make meaningful choices. In Telltale Games *The Walking Dead,* there are a lot of seemingly impactful choices to make but as soon as players went into the game again to see them play out differently, they realized that most choices made no difference whatsoever, which quickly diminished the replayability in that game.

Having different characters available that allow for a different experience of the game world can also create a strong replay value. Having some key scenes play out differently or even just small interactions changing depending on the chosen character can make it feel like multiple games in one. In *The Legend of Zelda: The Wind Waker*, after beating the game once, you essentially play the same game again but there are some minor tweaks such as having link in a different outfit and ancient beings who spoke in unreadable symbols before now being readable, which isn’t a lot but nonetheless does its part to raise replayability.

b. Player-created Content Elements

Now let’s move on to Player-created Content Elements.
This refers to replay value that does not originate in the base game or wasn’t

deliberately put in the game. Multiplayer games do this naturally by having the players shape the games and interactions themselves that when based on well-balanced competitive environments create endless replayability.
There is something inherently motivating in competition, as seen in games like chess or Go, that remain unchanged today and heavily played as well.
But single player games can harvest the same crop when adding high scores and leaderboards to their games. Having a creative and active community form around a game can also be one of the most beneficial things to happen to their replayability. Communities bring with them modifications or so-called mods (if they are properly supported), which allows players to create their own game within the frame of the original, basically expanding it infinitely, depending on the size of the community. Community challenges also further replayability by coming up with self-imposed rules that sometimes drastically increase difficulty and play styles in a game. A famous one of those is the “Nuzlocke”-Challenge, which can be applied to any of the main Pokémon games. While normally your fighters simply faint when being beaten in combat and can be healed in numerous ways, in a Nuzlocke run, that fighter is considered dead and has to be released so you don’t have access to it anymore. This means you can even have a game over if you run out of Pokémon, something not possible in the main game (even though it is up to the player to enforce those rules) (Franco, 2010).
Another way to heighten replay value is to make the game accessible to speed runners. Speedrunning has become a significant factor in gaming and having unskippable cutscenes or relying heavily on random number generators can foul a player’s desire to speedrun a game by taking away too much player agency.

c. Game Mechanics

Finally, the big part, Game Mechanics.

i. Rewards

As with almost all living beings, players enjoy being rewarded. It is oddly similar to giving treats to a dog in order to have them do a certain action.
A properly placed reward does wonders for player motivation and replayability.
But it might be a little more important than that, it could actually be a necessity, or as

Koster puts it: “Rewards are one of the key components of a successful game activity; if there isn’t a quantifiable advantage to doing something, the brain will often discard it out of hand.”(Koster 2013, p.120).
They can take many different forms, some games simply add achievements that give a small burst of reward for accomplishing a certain feat.
Those have to be properly balanced, since they are a lot less meaningful when they are either given out for rather mundane actions (e.g. finishing the tutorial) or become too numerous, as very few players will strive to get over 600 achievements on a single game.
Rewards can also appear in the form of unlocking new game content or characters or even easter eggs, which are events, items or something similar which are very well hidden deep within a game and reward thorough exploration with an unique reward.
A distinction between natural and exterior rewards has to be defined, though. The ones mentioned above are mostly exterior rewards which are separate from the game in itself. Achievements for example only appear in the launcher and have no bearing on the actual gameplay in most cases.
Natural rewards are when the way the game and its mechanics are set up in a way that generates a rewarding experience with a mixture of challenge and reward. Examples of this are the classic system of fights in most games. Unless the player fails and loses the fight, almost all fights will reward players for winning in the form of currency, items and/or experience. In most role-playing games, all three of these are usually handed out.
But the reward should match the challenge, as giving too little might lead to players not being motivated enough to continue or even feeling somewhat cheated.
Giving too much of a reward is also risky, but happens less often, as it most likely will have ingame balancing issues attached to it to begin with.
These small rewards naturally given by the game can be described as “micro mechanics” that motivate for a short time and work when strung together. But most players paly through games in multiple sessions over the span of days or even months.

ii. Micro and Macro Mechanics

Games should therefore strive to have both micro and macro mechanics, since "Games […] differ in short-term game mechanics (micro mechanics), but also in long-term mechanics. These macro game mechanics are the ones that motivate for hours, if not for days and weeks." (Suter et al., 2018, p.24).
Those are the mechanics that motivate players (beyond their intrinsic desire to finish any given game they start) to play through the entire game.
Some common examples for this are new areas or biomes that players gain access to while playing, motivating their next play session to explore them or even an engaging story that is well paced, rewarding the player with new, rewarding story beats throughout the game and motivating to see the resolution of the entire story.
Skill trees or similar mechanics can also motivate this way, since having a very strong and grandiose skill wait for players at the very top of their skill tree will provide additional motivation to at least see them in action once.
Mechanics that allow for varying solutions are also a strong way to achieve motivation and replayability as well. It should be communicated early on to the player, that they are encouraged to try different approaches. This can generate experimentation, which is a motivation in itself and with appropriate payoffs a rather effective one.

iii. Preventing problematic player behavior

This also prevents players from finding and abusing a "dominant strategy". An example for this when a combat game has a certain attack that is unfortunately more effective than all other options. Players will use this exploit and paradoxically think of the game as shallow, even though their own behavior is the root of that problem.
Not all players do this and not all do it consciously, but if something like the mentioned example is in a game, players will use it and not be happy about it.
This human behavior is not exclusive to games, because "If we come across a problem we have encountered in the past, our first approach is to try the solution that has worked before, even if the circumstances aren't exactly the same." (Koster, 2013, p.132).
We're basically rather reluctant to abandon known solutions, which is understandable, but at the same time, succeeding with the same tactic over and over

again is boring and will be perceived as poor game design.
If a tactic like that works, people talk about “breaking the game”. Which means finding a way that makes the subsequent parts of the game exceedingly trivial. It is a negative aspect most of the time, and many systems have been invented to prevent this (having a required level on strong equipment prevents a lucky find early on from breaking the game).

iv. Letting the player loose

But some games want players to eventually or occasionally break them, especially roguelikes.
Their structure makes a game break less severe, since it only affects the one current run the player is on. If not a trivial feat to achieve, it is also immensely satisfying if a player manages to both notice the possibility and manages to attain the necessary parts.
Since roguelike games are more on the difficult side, turning from the downtrodden and beaten up character to a god who cannot be stopped during his current run is a great way to dissolve built up frustration and reward the player for paying close attention and taking the right actions. In *The Binding of Isaac*, for example, there is an item that makes the player character gain life instead of losing them when exposed to explosions, which is rather useful in itself. But there is also an item that lets the player detonate themselves via button press as much as they like. Normally, this item is rather weak, but when a player manages to combine them out of a pool with over hundreds of options, they turn into an invincible, permanently exploding and self-healing machine that can never die, if handled correctly.
Therefore, some games consciously allow players to break the game, knowing the motivational power behind it.

v. Variety, Grading and Random Elements

Variety is more or less a synonym of replayability and has been part of previous points, since playing the same game again and having a vastly differing experience is a great indicator for high replay value. As mentioned in story, having different characters be available helps a lot, not just restricted to story elements. Classic

games like *Diablo II* or *World of Warcraft* let you choose your class at the beginning and having even the basic warrior, ranger and mage choice is a good step into a replayable direction, long as they play differently enough.
The branching paths fall into the same category, make players choose certain missions excluding some others, that way they see the additional content but must replay the game in order to experience it.
Grading players is another way to go about it. It is similar to rewards mentioned earlier, but act more as optional rewards, that are not easy to obtain and make the player understand this right away, motivating only certain kinds of gamers. Games like *Devil May Cry* or *Cuphead* give you a grade after each stage, which can motivate some players to finish the game with only the highest grades in every stage or to just try some again where they were very close to the highest grade. This also has the added benefit of competition, where players can show off their perfect runs to each other.
Random elements also keep games from becoming stale and they can take on many a form. From weapons that deal 5 to 10 damage all the way to random drops that have random abilities there are many ways to include them in a game. These elements have to be balanced out though, as mentioned earlier, having randomness play too big of a factor takes away player agency and even non-speedrunners will probably not respond well to this.

vi. Eternal Progress

Games like *Dark Souls* and *Blasphemous* have something called “New Game +”, which allows the player to keep most of their progress and restart a more difficult version of the game.
Games that focus on single runs and most of the time some sort of permanent death also have a way to lessen the blow of a failed run, which is eternal progress. In most cases, that progress is made by acquiring a currency within the run which can then be spent to increase player stats, unlock items or simply adding cosmetic options. This also gives players the option to lessen the difficulty of a game over time, preventing them from losing interest due to not accomplishing anything perceivable.

vii. Balance

Within all of these elements lies the correct balance, without which any of the given mechanics can turn on its head and might have the opposite of the intended effect. Relating to this, the Youtuber “Design Docs” explains in his video essay on replayability that certain aspects he deems significant for replay value, such as novelty, creativity and evolution each are opposed by different aspects, that lower replay value when executed poorly.

Novelty, which consists of branching paths, multiple characters, procedural generation and multiple endings is opposed by staleness, which does not necessarily make a game bad, but regarding the replayability, there will be losses. It includes linear level design, that have players follow long corridors and a rigid story that while being a good story, has little value being played over again once it is known.

Creativity is player driven, is found in open world games, sandbox games and features clockwork systems that allow for different approaches to any given goal. It is opposed by Inhibition. Dominant strategies smother creativity and render even well-built clockwork systems useless. Tools that are very difficult to handle and badly curate the creations of the players tend to be a hinderance to replayability. Open world games are also a risky endeavor, as even if the world is large and features a variety in biomes, if there isn’t anything meaningful to do outside of large towns, players will quickly give up on exploring it further (Design Docs, 2020).

L.A. Noire, while well-liked by its audience is known for having a very empty open world, that doesn't deliver any motivation to explore it, making the entire open world aspect rather obsolete.

Evolution sees the content of a game grow and change, especially in competitive games where 1v1 battles are held. Those games need a changing and balanced meta to thrive. Elements like leaderboards, speedruns and high scores were mentioned earlier and also fall into this category. Evolution is opposed by Stagnation. Dominant strategies in fighting games for example are poison to them, as seen in *Super Smash Bros. Brawl*. When playing with friends, you could just agree on not using the strongest character, but when at a competition, this will be different. Which in this case means almost everybody playing the same overpowered character, Meta Knight, or getting beaten by it, making competition stale.

He concludes by saying that replayability has to be cultivated, because staleness, inhibition and stagnation can lurk at any corner and threaten replayability.
“This is an important insight for game designers: the more rigidly constructed your game is, the more limited it will be.” (Koster, 2013, p.38) is a fitting quote that might ring even truer when applied to replayability.
These rather general game design ideas can get a game on the track to have good replayability, but they have to be well coordinated to function.
Before looking into the rogue-like genre specifically and which replayability methods are deployed there, a distinction must be made.

d. Motivation vs Manipulation

It is important to distinguish between replayability that motivates a player to just play the game and enjoy their time doing so and the sort of replayability that seeks to create habits and psychologically manipulates a player to play the game and spend more money on it.
Today it is no surprise that some games (the mobile games market is especially known for this, but it exists in many forms) use game design to try and foster a kind of addiction within the consumer. They deploy methods that make players feel like they have to play their games or lose out and be punished for it (Bycer, 2020).
Before we go through some examples of these methods, there is need to differentiate these two kinds of design that want to see a person spend time in the given game.
For clarity’s sake, the kind of games that have no psychological manipulation in them will be referred to as “Motivational Games” and the ones that do as “Manipulative Games”. This is not to paint either one as good or bad, but to make the core goal apparent.
After all, the different approaches stem from having a different goal.
Motivational Games earn money from customers purchasing the game, while Manipulative Games seek to hook a player and want them to continually spend more money on it.
Manipulative games know that people are cautious about spending money and if a game costs 60€, they might look into reviews, trailers and maybe decide against a purchase.
That is why so many of these games are free to play, early this year, all of the top 10

gaming apps in the U.S. were free to play (Clement, 2022).
To understand why, we must look at the dominant strategies deployed by these games.
At the core, Manipulative Games are trying to get players to make in-game purchases and they have found some very strong and subtle ways to make this happen.
Daily Rewards are a system that existed even before the growth of the mobile gaming market, because MMOs have and still use them as well. Give the player some rewards simply for the small task of logging in each day. While the game is already open, they might as well play a little and might even spend a little cash. Some games extend this to make the player earn their daily rewards by playing, effectively forming a habit of daily play which greatly increases the chances of an eventual in-game purchase (Grosso, 2016).
It also plays well into a different aspect: Reciprocity. This scratches dominant social part of our brains and can be summed up with the behavior to feel the need to give something back when someone (or something) gives us something (Bousher, 2020). This works for games as well, especially when they use the right language and tell the player they got a gift or present. Combined with daily rewards, why not spend a bit of money after all the free items and currency the game has given you?
Another way to go about habit forming and pulling a player deeper into a game are “real time systems”. These are when a task or event occurs within a game whether or not the player is actively playing the game and require them to open the game to not miss out (Bycer, 2020). The fear of missing out can be very persuasive when all you need to do is sign in and play a round or two. Many farming games use real time systems to grow crops that then require frequent checking-in to succeed and eventually receive. It is here that loss aversion can be used to manipulate a player into spending money.
There are theories that suggest the pain of losing something is double the joy of gaining something, which many games try to exploit (Bousher, 2020).
So you spent a lot of time playing a farming game and have a huge farm and some high-value crops on the way. The game has a system that causes your crop to wither, if you don’t harvest in time but you have such a full day that this seems impossible. In such cases, most games will offer an option to widen the timeframe for this, at a small cost.

Games like *Candy Crush Saga* allow you to continue a level after you've run out of moves and would have to start the entire level over again. To avoid this loss, people are heavily encouraged to spend money.

In a similar way that we want to avoid losses, we also desire things that are unique or scarce (Adar, 2016). This manipulates players as well, since the scarcity is obviously artificial.

There is also the Foot in the Door Technique. It is "a compliance tactic that assumes agreeing to a small request increases the likelihood of agreeing to a second, larger request" (McLeod, 2014). Many games have an attractive "starter pack" available or purchases that can be made rather easily after playing the game a while and once a player has purchased their first item, they become even more susceptible to this phenomenon.

As we can see, these methods don't try to motivate you through fun gameplay or a gripping story but by often subtly influencing the psyche in a similar way to gambling that is arguably unethical and more importantly, not what a game is supposed to be, since it boils down the "fun" part discussed in the beginning to a state that can be achieved through manipulative means and afterward is withheld unless money or time is spent (Bousher, 2020). These manipulative games hold enjoyment for ransom while motivational games try to deliver it frequently and through meaningful gameplay.

Now, not all mobile games are manipulative and not all of these methods are negative in themselves, but most of the time they are used how it's described above and therefore the distinction is very important going further.

Because simply motivating a player to play with any means necessary is not the explored topic but how to make someone enjoy their playthrough and be glad to have played the game afterward.

And that cannot be achieved by using manipulative methods that trick your subconscious into thinking they need to play a game, but rather by honest mechanics that foster enjoyment.

Therefore, these manipulative methods generate addiction in a game more than they do replayability.

But now, let's look at a genre that excels at this gentle motivation and made it big in the replayability compartment, even though the basic gameplay loop has a lot of death and repetition.

5. History and Explanation of the Rogue-like Genre

a. Berlin Interpretation and change in recent years

The world of gaming is a complex and ever-growing field, that is rich in variety. Many new and interlocking genres have formed in recent years. The so-called “Roguelike”-genre is not exactly a new genre, the game that lends the genre its name “*Rogue*” was released in 1980.

It is not a complicated game; players are tasked with finding the “Amulet of Yendor” in the lowest level of a dungeon. Along the way, there are monsters to be defeated, treasures to boost the player to be found and decisions about where to head next to be made.

The novelty came from other game mechanics, most notably the “permadeath” and the procedurally generated levels.

It became rather popular and inspired others to create games that used and expanded the game mechanics present in the original (this was partly because the source code was not made available and developers seeking to emulate the original had to find different solutions).

With new games in the same vein being continuously created, eventually, an entire genre was born, named after the first game to feature the key aspects of it (Glindon, 2020).

With it, the discussion of what sort of game would fit into the genre began and is still going.

Notably, there was an event back in 2008 called the “International Roguelike Development Conference” that took place in Berlin, where experts would try to define the genre.

Though most agree that the list of key features they came up with does represent a lot of important aspects, it isn’t supposed to rigidly define the entire genre. The authors themselves made a point of saying that “The purpose of the definition is for the roguelike community to better understand what the community is studying. It is not to place constraints on developers or games.” (Berlin Interpretation, n.d.).

Since this genre and many of its most notorious representatives are going to come up frequently, it is a necessity to have a quick look at the so-called “Berlin Interpretation”.

Their list is split into two categories: High value factors and low value factors.
Let's start with the most important high value factors, leaving out some increasingly niche definitions like "grid-based", "non-modal" and "hack'n'slash":

1. Random Environment Generation: Each playthrough is supposed to be unique and while items and enemies may be set, their appearance and placement is random. The term "replayability" is strongly connected to this aspect, as having basically a new game each time you start over is a strong incentive to keep playing.
2. Permadeath: Players lose all progress when they fail and have to start over anew. It is not expected that players will win or finish the game with the first couple of tries.
3. Complexity: There must be a certain degree of complexity that allows for different solutions to the main goal the game requires. This is often achieved by providing interactions between the main systems such as items and enemies.
4. Resource Management: Players are given a finite amount of resources that have to be carefully rationed and obtained, adding an extra layer of strategy to the game.
5. Exploration and Discovery: Each new run must bring a certain level of exploration to the table, which should largely be independent from previous runs, be it on the dungeon levels or the identification of items.
6. Turn-based: The game (and most of all the combat) follows certain turn orders. Each command is tied to a single action or movement. Usually, this means there is no time sensitivity and players can take their time deciding what action to take next.

As we can see, most definitions do leave a fair amount of wiggle room for how certain aspects may appear. Santiago Zapata made a notable addition to point 2 (permadeath) when he defined the criteria as "permanent consequences" which means that the outcome of any action in the game cannot be reversed by loading a save file, not just dying (Zapata, 2018).
Now, moving on to the low value factors, factors that aren't as closely related to roguelikes. These are the areas where most newer representatives have innovated.

Same as with the high value factors, there are aspects like “ASCII display” and “Numbers” which will be left out, due to having exceedingly little relevance anymore:

1. Single Player Character: The Game is about one character who is controlled by the player. The World is viewed through their perspective and ends with their demise.
2. Monsters are similar to players: The same or very similar rulesets are applied to the enemies encountered within the game.
3. Tactical Challenge: There is a learning curve present, that requires the player to increase his knowledge and chances with each failed run. This usually means that roguelikes are quite challenges to new players, especially in the beginning.
4. Dungeons: The game contains a “dungeon” which usually consists of different rooms and floors.

Put together, these two lists form a good basis for a roguelike game. In an article about the history of roguelikes, Nathan Brewer writes that “One element common to the genre not covered by the Berlin Interpretation is the high learning curve and difficulty level. It is not uncommon for someone to play NetHack for years without approaching the end of the game. With the expanding PC game market in the 1990s and 2000s, game developers marketed some of Rogue’s ideas to a broader audience by removing some of the features that made it difficult for new gamers.” (Brewer, 2016).
When designing a game where most of the time, players are supposed to perish, it is certainly correct to imply a relatively high difficulty.
When becoming more and more mainstream, this aspect has probably morphed the most out of the ones listed, so much that it spawned its own sub-genre.

b. Emergence of Rogue-lite

In this wake, the term “roguelites” was coined. The goal was to lower difficulty without missing out on the aspects of roguelikes that made them so enticing. Unlike roguelikes, there was no conference held to define the term, but there are some key differences that can be observed in almost any of the games. Roguelites favor shorter gameplay runs which is supposed to make players want to jump in again after

a failed run without feeling like they lost a large chunk of time without making any progress. This issue is also tackled by featuring a metagame, which allows players to unlock persistent features or eternal progress in the form of having different (both in playstyle and difficulty) characters or giving the player more resources when starting a new run. Once unlocked, these features usually apply to all subsequent playthroughs (Grieve, 2021).
These elements can create a smoothed-out difficulty curve and bring with them the possibility for players to eventually finish the game without having learned and improved their tactic and gameplay but by simply throwing enough time at it.
To showcase some ways that games have avoided this problem while still remaining relatively beginner-friendly, we will take a look at some critically acclaimed titles from the last years.

The Binding of Isaac has a fair number of playable characters, some of which can be unlocked by casually playing the game, others are very difficult to unlock and even harder to play. The Game also expands over successful playthroughs, meaning the more often you manage to finish a run, the longer and more difficult the game becomes to fully complete. Both of these mechanics allow players with less skill or patience to acquire them and expert players to get rewarding experiences without excluding the other one.

While *Diablo* and *Diablo 2* are considered action role-playing games, that do punish players for dying, they included the option to play the game with a “hardcore” character. This basically turns the game into a roguelike game, because when a player fails to keep their hardcore character alive, they are locked out from ever playing with it again and would have to start a new one. Like this, players seeking that kind of challenge can choose to do so while others aren’t locked out from having a bit less of a challenge.

Games like *For the King* include a system of reward currency that can be earned by playing the game. This then allows players to purchase their choice of permanent upgrades, either new character classes, events, items and cosmetics. The farther you get in your run and the higher the difficulty, the more of this reward currency can

be attained. The possibility to purchase certain upgrades are also often tied to in-game events and achievements that have to be cleared before becoming available as a reward at all.
These mechanics and ideas provide players in all skill categories to have a fun and/or rewarding experience without losing the players that come seeking a tough challenge.
After all, roguelike games are meant to persuade among other things with their replayability, which is rendered rather useless when the game is considered either too hard or even too easy. Keeping players motivated is challenging, especially in a genre which has permadeath as a key feature.
In recent years, the genre has grown rather big, showing that the formula can work spendidly. It grew especially big in the indie games community and with that came a myriad of new ideas and old genres being spliced onto the roguelike or roguelite core. There have been roguelike rhythm games, Deckbuilding roguelike games, first person shooter roguelikes and tower defense roguelikes. They opted to pick and choose from the Berlin Interpretation and fill out the rest with their ideas, which has worked out very well for many of them (Design Docs, 2019).

6. Player Motivation Methods in Roguelike Games

In this section, we will take a closer look at some of the most successful and well-known games that fall into the roguelike and the roguelite genre, to discern which methods they use for replayability and how they implement them in their mechanics. Starting off with a big name, we will examine *The Binding of Isaac* first (Nicalis, 2014).

a. The Binding of Isaac

Some basics about it were explained earlier, but it has many more complex and very well implemented systems that do a great job of showing how to motivate players even through numerous deaths.
This game falls into the roguelike category, as there are no mechanics present that give players a clear advantage in subsequent runs. There are unlockable items but most of them require beating the game to gain access and some of them arguably

make the game more difficult.
The game starts off with plenty of variance already: There are multiple playable characters, players see that and how they can unlock further ones, there are different difficulties and an alternative mode. There are also challenges, which are runs with varying goals that start the player off with a certain set of items.
This gives players a scope of the depth right away but also does not overwhelm by showing that more is to come but starting with only a set number of possibilities.
Gameplay consists of advancing through floors that consist of a set number of rooms, with at least one boss that guards the entrance to the next floor. The titular Isaac shoots his tears at strange and biblical monsters, while navigating traps, special rooms and his resources.
Isaac gets stronger, the more items he finds, which is also one per floor at least. The core gameplay consists of the variance of floor and room layouts and the combinations of items and their effects. Through procedural generation, each of these is wildly different in each run, which is further amplified by having unique item combinations.
The game also expands, the more it is played. At first, a run will be considered successfully finished when beating a certain boss that appears after a set number of floors. By beating this Boss enough times, the game gains an additional two floors with another final boss. Beating that boss enough times gains access to two different floors with another final boss each. This actually goes on a little further, but the mechanic is clear.
Having the game open up over time serves several purposes: It makes the beginning appear more manageable, while adapting to the player's skill as they progress through the game and it also changes the gameplay a fair bit, since to reach a certain boss or final boss, certain conditions have to be met and items have to be found in time to be able to challenge them.
In addition to the natural satisfaction a player may gain, this accomplishment is sweetened by unlocking a new item, which is a reward while at the same time motivating the player to play another run in order to see what the item can do. Newly unlocked items are more likely to appear in following runs as well, which plays into this mechanic splendidly.
The Binding of Isaac also makes the player's achievements visible to them. When selecting a character, the player can see which final bosses they already cleared with

this character. Furthermore, the game shows the last big achievement they made when selecting a save file thus reminding and motivating for more.
Replayability also naturally comes with having a good amount of depth within the game, which is also the case here, where some systems and mechanics are very subtle or are far more complex than they first appear. Players that have played for hundreds of hours are still likely to not know just how certain mechanics work exactly or that certain item interactions exist at all. If not overdone, this will catch players who are already into the game and drag them down a rabbit hole of discoveries and secrets about the game that they have yet to see. To summarize, games looking to go for replayability, especially in the roguelike genre should take a close look at what this game does, especially how they make the most out of the main genre-staples.
Procedural generation adds variety but there are good and bad ways to go about it, it is one thing to mix up some items and events with it, but to really make that aspect shine, a lot of effort has to be put into having vastly different rooms each time. *The Binding of Isaac* is a prime example of this, as it not only shuffles around the floor size and room arrangement, which is gigantic, but it also has different enemy set-ups, alternative bosses, champion versions of normal enemies and bosses and not to mention the random items from several different item pools, the room clear reward, which is random every time and trinkets, pills, cards as consumables.
Seeing how successful the game is, having sold over a million copies by the end of 2012 alone (McMillen, 2012) one can only summarize that the deeper procedural generation is rooted into the main systems, the more replayability can be achieved theoretically.

b. Enter the Gungeon

Now let us look at a similar game that has a couple of major differences: *Enter the Gungeon* (Devolver Digital, 2016).
The core is the same as before, the player goes from room to room, from floor to floor and shoots their way through enemies and a boss on each floor. Instead of items that change stats and how attacking works, this game features a large roster of guns, each with wildly different effects.
The game is shorter than the *Binding of Isaac*, but not less replayable as a result.
It makes up for that in a steep increase in difficulty in the last floors, but also offers alternative and secret floors and bosses as well. For the final floors to not become

too frustrating, players have the possibility to unlock a shortcut that takes them to a certain floor right away. Some would consider this enough reason to put the game into the realm of roguelites but having these shortcuts does not necessarily make it easier to finish the game, it just gives players the opportunity to get familiar with the later floors, as they otherwise might not make it there all that often.
But by using this shortcut, players lose out on a lot of items and consumable that they will need for the final floor and final boss. Furthermore, to even unlock these shortcuts, players will need to advance to that floor to begin with and then make a considerable effort to unlock it in a run. So, this is a clever way to reduce the first few floors from becoming stale, as due to permadeath a lot of players will spend the majority of their playtime there in the beginning instead of giving the player a lazy way to eventually finish the game just because enough time has been spent on it.
Players also earn a special currency for taking down bosses that can be spent in the starting area of the game.
That currency is saved between runs, once you have obtained it, you do not lose it by dying which is a mechanic also often deployed in roguelites, but in this case, the only thing to unlock are new weapons, which do not make the game easier. They do however motivate to find and try newly unlocked weapons and naturally add variety to the core gameplay.
Let us move on to a game that actually is a roguelite but has found interesting ways to strike a balance between it and roguelike games.

c. Dead Cells

The game is called *Dead Cells*, an action platformer game which took inspiration from roguelikes and so-called “metroidvanias” (Motion Twin, 2018).
Players fight their way through different biomes (similar to floors), face set bosses at certain points and have to start over again when defeated.
They do have a progression system that allows the player to permanently increase their stats and chances of success over time. But the developers chose very carefully which stats can be increased and what can be unlocked with this system.
First of all, nothing is for free, players have to defeat enemies and quite a few to accumulate enough souls to unlock anything. On top of that, those souls have to be brought to a special NPC, that only shows up in certain places and if a player dies, they lose all the souls they had.

New weapons and skills can be unlocked, but same as with the other two games, this does not take away from the difficulty of the game but rather adds to the variance. Also, those weapons are unlocked through blueprints, which are found in levels and have to be given to an NPC before the player can invest souls to add it to the game. Those blueprints are also lost when the player meets their untimely demise.
There is no way to increase the player directly other than extending the amount of healing available to the player. There are useful skills, like keeping some of your money when dying, starting with a larger option of starter weapons, being able to recycle found items that are not needed and cannot be carried into money but none of these actually make the player character stronger in any substantial way.
The game also gives player a lot of options to use this system to shape it after the individual players preferences, which is a wonderful idea as no matter what game, people are looking for different experiences and enjoy other aspects of any given game.
Players looking for a challenge can choose to not obtain more healing and spend it on new weapons or other options, while players who struggle to make progress can ease the difficulty a small amount by making the right investments that suit their playstyle.
This aspect of letting the player choose how they want to approach the game also manifests in gameplay, as at the end of each biome, a player is rewarded with souls for either getting there in a certain time limit or killing a number of enemies without taking damage, rewarding different playstyles. This is also a good way to actually reward frequent players who are rushing through the first couple of biomes in their runs instead of forcing them to adhere to a certain playstyle.
Similar to other examples mentioned, the game also opens up over time, as new biomes are unlocked. *Dead Cells* does this in a way that is standard procedure for metroidvanias: Early in the game there are places where you are prevented from advancing in that specific direction by an obstacle that most of the time makes it obvious that eventually, the player is going to find something with which to bypass that obstacle.
Once they do, either by reaching a certain area or beating a boss, they can access these areas in a new run and create a web of possible biomes that let the player choose which way, biome and boss they want to take in a given run.
Giving the player this much agency is especially appropriate in this genre where

permadeath is always threatening to exclude players with low tolerance for frustration and high difficulty.
It is also noteworthy that this partly leaves the balancing to the players themselves, which is a smart way to go about it, since balancing and fulfilling the wishes of every individual player is one of the most difficult tasks in developing a game.

d. Slay the Spire

Another important example is *Slay the Spire*. This is a roguelike deckbuilder game, where you fight through three floors and have to beat a boss at the end of each by adding cards to your deck, upgrading them, removing them and play them against enemies in a turn-based combat system (MegaCrit, 2019).
The game has different characters that are unlocked by playing the previous ones, similar to *The Binding of Isaac*, the same goes for new relics (items, that improve the player character in various ways) and cards, they are unlocked by points awarded at the end of runs, which are higher, the farther you got.
We can already make out some familiar concepts here: both starting the player with a manageable amount of gameplay while opening up over time are strategies deployed by this game as well.
The developers also fulfilled the procedural generation part well, since even though enemies have a fixed moveset and events remain the same every time, enough elements change between each run to give a plethora of variance. In this game, that is mainly the cards obtained after battles or other events. As the card pool is big, a player will have an exceedingly hard time getting together the same deck twice.
The player also decides which way they want to go, they advance to the next room by clicking and have the map for the entire floor available the entire time, giving them full control of their adventure.
After beating the game with a character, that character can play runs in the “ascension mode”. This mode starts with one and rises each time another run is successfully finished, adding an extra small layer of difficulty with each step, as the effects add up and consist of everything from enemies and bosses having stronger move sets to starting with negative cards in your deck from the beginning. This way, the difficulty of the game scales with player skill, while still leaving the player in control of the degree of challenge they seek.
The game also offers the possibility for players to challenge themselves: Custom

Runs. These are basically game options that will change the main gameplay strongly by adding all sorts of bonuses or difficulty to the playthrough. This way, players can make a run easier, different and a lot more difficult, depending on what they are looking for, an excellent option to make every facet of content easily accessed.

e. Darkest Dungeon

Another effective method for having the game difficulty rise as player skill increases is seen in *Darkest Dungeon*.

The game is described as a gothic RPG with roguelike elements, but considering the definition of the genres earlier, it might be more accurate to call it a roguelite, due to a system of unlockable power ups over time (Red Hook Studios, 2016).

In *Darkest Dungeon*, the player puts together a party of four fighters recruited in the hub village and sends them into quests that consist of entering a floor with multiple rooms and either doing some activity, clearing enough rooms or fighting a boss. Members of the party that die can not be played with anymore, any progress on their level and their items are lost.

Fighters can easily attain a mental illness or a disease that need to be taken care of, removing them from being able to fight in the following quest.

This can catch players without their best fighters readily available and having to buy new low-level fighters and trying to level them carefully. To diminish this effect and to avoid players getting stuck in the early to mid-game the game offers an upgrade system.

In the hub village, players can either mend the mind or body of their fighters, increase their skills or equipment, buy items and hire new fighters, all between quests.

Each action has a specific building assigned to it and players can spend different currencies acquired in quests to increase the effectiveness of the chosen building. This way, the choice of upgrade falls on the player, who can decide themselves which way they want to go. This also applies to choosing quests, since their reward is different assortment of currencies (among other things) which is information the player can use to acquire the currency they need for their desired upgrade.

The game itself gets more difficult the farther a player gets but they always do have the possibility to take a break in advancing the story or progressing the game and can focus on strengthening their hub village and fighters, letting them bypass a certain amount of player skill, but arguably not much. The final quests are fully aware

that the player has all the upgrades and items they need and challenge them accordingly, which is an admirable feat to achieve.

f. Hades

Another unique example to imbue a game with replayability is to do what the creators of *Hades* have done in their game.
It is officially titled as a roguelike game but applying the definitions of the Berlin conference, it would probably be more appropriate to call it a roguelite game, since there is no actual permadeath and players can boost their stats over several runs to increase their overall capabilities (Supergiant Games, 2020).
Hades is a dungeon crawling action roleplaying game, in which the player controls Zagreus, the son of Hades. Zagreus is looking to escape the Greek underworld and reach Olympus, the place where other gods reside.
It has all the common elements of procedural generation, player choice (players choose their starting weapon out of several possibilities for example) and thus a healthy amount of replayability.
They do have a special approach that is rather unique for the genre and that is procedural narrative storytelling.
Taking the procedural aspect of roguelikes and applying them to the story is a new concept and it worked out very well for Hades, as it is often part of the general praise the game receives.
There are several characters either original or taken from Greek mythology that the player can talk to. They also have a sort of storyline each, that starts by giving them a certain item as a gift and then takes an individual course with challenges that have to be completed in order to continue the storyline. These storylines are intricately woven into the gameplay, as the player progresses on them no matter if they succeed at a given run or not.
This gives players an optional goal to motivate them, while also rewarding them with boons that strengthen the player overall when they succeed.
This alone is great feature that naturally motivates players to dive in again, but it can also take away a part of the frustration that might appear when failing a run, since a player might have achieved a different goal.
While most other roguelikes and roguelites only feature a very broad story which is usually not a big focus, *Hades* managed to include the story by additionally having it

advance certain mechanics and not standing alone.
Even though the main character technically dies, since he is already in the Greek underworld, he simply gets sent back to his starting house. This circumvents needing to have different characters or having to explain the passage of time through new runs and gets only more effective by having a very well written and fleshed out cast of characters that motivate to play simply because it is very engaging to listen to their stories and forming a relationship with them.
To summarize, roguelikes and roguelites have several core systems that help avoid players getting frustrated and quitting the game which have evolved over time.
Still, as we can see in this comparison of examples, each game has their own way to implement those systems and chooses which best fit the particular style they are aiming for.

7. The importance of Balance

Fun and therefore motivation to continue playing are fostered through the right core systems and additional mechanics enhancing them, but there is a term that defines whether or not that combination of elements works well as an enjoyable game: Balance.
Now proper balance is notoriously hard to come by and is shaped by genre expectations and player behavior that can only be met by meticulous planning and a substantial amount of testing and re-balancing, even after the release of a game in some cases.
This is even more relevant for competitive games where players unaware of an imbalance will most likely be rather disappointed in finding out that their way to play (e.g., their favorite character) is unable to compete with certain others.
The core of this is comparable to a school system: you get introduced to certain systems and rules and are periodically tested and subsequently graded on your understanding and capabilities. When the classic scenario ensues, that a test is asking for knowledge that a student has not been taught, they will deem this unfair. In life, you have to deal with it and maybe complain, but in a video game, you get annoyed and if it happens too often, you quit.

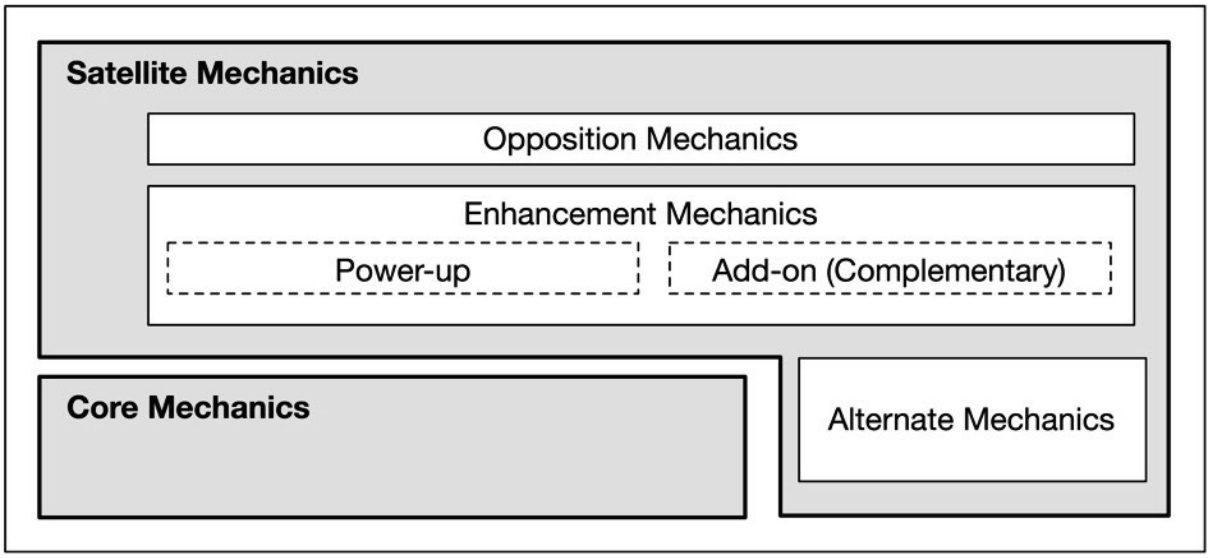
A good balance starts with an adequate educational system, the player needs to be taught how the core gameplay works and then test them accordingly on their understanding/mastery of it.
“This is the idea that a given learner has things he can do without help, things he just cannot do, and things he can do with some help. Fun tends to come in this last one, and the help is provided by the game system.” (Koster, 2013, p.98).
This comes back to the feeling of competence that most humans cherish. They need to feel they earned it through their own merits with a bit of help by the game itself, but that learning process needs to be carefully cultivated.
Koster points out certain features that are needed in order to have a proper and balanced learning experience take place:
A variable feedback system. The result of an encounter should not be fully known to the player, but ideally rewards greater skill with better rewards. An example of this would be how in *The Binding of Isaac* players have a higher chance to access a special room holding powerful items when they manage to not take damage for an entire floor and the respective boss fight.
The Mastery problem must be dealt with. This means that high-level players should not get useful benefits from easy encounters. Otherwise, they can either break the game by patiently going for easy encounters and eventually becoming strong enough to make the rest of the more difficult encounters trivial or players that aren’t as high-levelled or skilled might become unable to get the most out of the game.
Failure must come at a price. There are no do-overs (by saving a game beforehand and quitting when things go wrong for example) and at the very least there should be an opportunity cost. This forces players to actually understand and grasp the underlying mechanisms of a game and once they made a mistake, they will learn from it and possibly be rewarded with success the next time they face that challenge (Koster, 2013).
Any learning experience is also completely halted when players realize that the same strategy works every time. In addition, they might feel unfairly treated when suddenly, that is no longer the case.
This means the player has to be sufficiently prepared for most challenges the game will throw at them, the balance between teaching and testing has to be struck and every challenge, even when failed, has to appear fair and manageable eventually. Otherwise, players will most likely experience boredom in some form.

Boredom is to be avoided at all costs when creating a video game, as their purpose is arguably to replace boredom.
For Koster, this means that a good and balanced game is “one that teaches everything it has to offer before the player stops playing” (Koster, 2013, p.46).
As he explains, both paired with either triumph of frustration, boredom might strike if a game fails to provide a meaningful learning experience and there are many pitfall traps to fall into:
- A player might understand how a game works after a very short time and dismiss it as trivial, the same way any adult would dismiss tic-tac-toe as trivial. This means the player found a strategy that lets them get by without changing or actually solving the game. “Too easy”, they might say.
- A player might understand that there are deep and intricate systems within the game but feel like they are below their level of interest. This is something that game designers cannot fight, since not everyone will be interested in their game and there is nothing to do about it.
- A player could fail to see any patterns whatsoever and feel wholly underprepared and taught for the challenge presented. “Too hard”, they might say.
- A game might unveil new challenges and variations too slowly, causing it to be dismissed as trivial even though there is depth present. “The difficulty ramps too slowly”, they might say.
- A game might also unveil its new challenges and variations too quickly, causing a so called “difficulty spike” which might lead to players feeling underprepared as well and not taught at an appropriate pace. “The difficulty got too hard too fast”, they might say.
- A player might master everything in the pattern the game offers, they have exhausted all fun, consumed it. This can happen even though the game might have more content to offer. If it stopped providing a learning experience by not challenging and building upon the previously established systems it taught the player, they might become bored as well. “I beat it”, they might say. (Koster, 2013)

8. Core Gameplay

To easier achieve Balance, it is important to break down a game into its core mechanics or core gameplay. Defining the core gameplay is crucial in knowing what

game designers want their players to experience within the game and designing the game accordingly.
Basically, the core gameplay are the activities that a player will repeat the most during a playthrough and are necessary to win or finish the game. All mechanics that enable this core gameplay are core mechanics and should be regarded as the most important in the game (Suter et al., 2018).



Graphic 1: Core Mechanics (Suter et al., 2018, p.78)

As seen in graphic 1, the core mechanics stand alone and are supported by satellite mechanics that enhance the core mechanics and expand on them. These can take different forms, but should all support the core gameplay and furthermore make sure that the game teaches this important center piece to the player.
According to Raph Koster, this is of utmost importance, as any given game is prone to eventually turn boring, cheated and exploited by its players.
There are no measures to prevent this from happening, the only thing game designer can do is knowing what the quint essential of their game is and making sure to teach this through the main systems in the game, eliminating all systems that do not contribute to this learning process (Koster, 2013).
Video game history appears to agree with him, as especially in recent years, with the release of big games, we've seen how quickly and accurately players manage to find flaws and inconsistencies in both new and old games.
This can be seen by speedrunners finishing newly released titles such as *Elden Ring* within 30 minutes only a few weeks after release, having broken the game almost completely (Distortion2, 2022).

There is a certain satisfaction in doing something in a game that obviously was not intended to happen that way or is a glitch and maybe even a bug. Many players find humor in seeing the otherwise flawlessly designed world break in unforeseeable ways.
But as long as they themselves are not game breaking, bugs and glitches, due to sometimes even being humorous in nature, are not something players single out when criticizing a game.
A study found that bugs and glitches are mentioned in only about 17% of negative steam reviews, while 57% mention game design issues that most likely stem from core gameplay not being conveyed properly (Hart, 2018).
This coincides with the findings that the core gameplay has to be effective in teaching its rules to the players or otherwise end up being the largest reason to quit a given game.
Especially with the roguelike formula, there are certain mechanics that cannot be omitted when creating one of these games.

V. Conclusion

Going back to the question originally posed, can we give a measured response to what even makes humans play games and what keeps players motivated to repeatedly play a game?
Let us start with the question what a game even is:
Out of the many opinions and definitions available, the baseline is that a game is an activity that happens outside of reality, held together by rules and systems where the outcome is achieving a goal or winning in some way. There is often mention of a “magic circle” that has to be properly established in order for people to engage in a game. This magic circle can take many forms, such as playing soccer and agreeing to not use your hands on the ball or programming a video game and having players take damage when getting hit.
The most important part is for the immersion not be destroyed, is that everyone, or in a video game the code must abide by these rules.
If a soccer player touches the ball and runs to the goal without being punished, the game loses its meaning, the magic circle is broken.
But the term game and especially video game is growing more diverse and blurry in

recent years, where some games are closer to interactive movies or performance art, meaning that as long as all participants agree on it, almost anything can be a game.
But why even play in the first place? What do humans have to gain from it?
There is not a singular answer to this, but there are multiple answers that might apply to different people.
For enjoyment, to have fun is what many would say.
But when do humans have fun, enjoy something? Chemically, the release of dopamine in the brain is probably the culprit, but then what makes games, something often removed from reality release that dopamine?
For some, it may be because they want to achieve something, win at something and video games give quick and effective access to that possibility.
Others may want to experience the social side of games, playing together on the couch, meeting new people online and forming connections with them through experiencing a shared adventure. As humans are mostly rather dependent on interactions with other humans, social competence is something most would consider a rewarding experience.
There are also those that seek to escape the reality of their lives, if only for a while and becoming fully immersed in worlds and stories never possible in the real world.
Then there's the aspect of wanting to feel competent, which is inherent in almost any human. Being good at something feels good, makes sense.
But it is a bit more complicated than that. Nobody will feel especially good or proud about being able to breathe, simply because it is both extremely easy and an automatic process. On the one hand, the activity cannot be too trivial, or it will not be worthy of feeling competent over it, on the other hand if the activity is too difficult, one will have a hard time reaching competence and might give up before getting there.
If a game is challenging enough while at the same time deemed appropriately fair by the player, they will most likely experience something called "flow".
Flow is the perfect balance between challenge and fairness, where a great amount of "fun" can be had. For it to take place, the game has to teach the player properly about its systems and mechanics.
The perfect case is when a game explains the core gameplay mechanics understandably and then continues to expand upon them with additional challenges which are all based on the basic core gameplay.
Nonetheless, any game can have all these aspects perfectly implemented and still be

uninteresting to someone, since personal preference, individual skill and other factors are something even the best balancing and motivational mechanics cannot compete against.

Then how do you make sure players repeatedly play your game and what mechanics and systems have game designers implemented to achieve this goal?
The term replayability or replay value is used for games that have specific systems in place, that make any given game more enjoyable through many playthroughs.
Effective ways for replay value are mainly variance, random number generation, reward systems and player generated value.
Variance is when each playthrough can be very different from the ones before, either by giving players multiple decision points where on subsequent playthroughs they experience something new upon deciding differently, or just having systems like skill trees, character selection and branching paths or storylines with multiple possible endings.
It combines with random number generation in forms like procedural generation, which is optimal for high replay value. Randomly generated items, enemies and environment are also heavily used to further that goal and if there is a high number of complex systems that work well together even within the randomized aspect, there is almost certainly great replay value to be had.
Reward systems like achievements are smaller in scale but still carry their significance, same as unlocking new characters, items or other game content after a successful situation or simply getting an in-game reward for winning a fight.
Game designers have to be careful with their rewards though, because they have a strong influence over players if done correctly and can soon turn motivation into manipulation, where games train players to form habits and use varying psychological techniques to get players to make in-game purchases.
Player created content is only partly in the hands of designers but can be supported in different ways. The best-case scenario is of course a natural community forming around your game that generates content in the form of mods, community challenges or tournaments. Some modern developers specifically tune their games to be more viable as an e-sports title to become more successful.
Speedrunning has also become more of an important aspect of games, which in today’s world probably makes it a good call to make a speedrun of a given game

pleasant for players. Not relying on too much RNG and having skippable cutscenes for example make games a lot more attractive to speedrunnes.
Games with player versus player gameplay are also favored in this aspect, since the natural variance in human behavior delivers unending replay value, as seen with games like chess, which of course also has a very strong and, on the surface, simple rule system.

Putting together the features of several examined roguelike games, we can create the basis of what such a game would greatly benefit from in terms of replayability.
First up would be systems that ease the player into the game without overwhelming them right away, while at the same time promising more and variant content as they progress.
Games that open up over time and player skill are great as this, we've seen systems of unlocking additional content used to both reward and newly motivate players.
Game designers can get very creative with what they make available later in the game, be it content that is more complex or how they give it to the player.
Additionally, letting the player themselves have a say in what they unlock in order to shape the game to their individual needs is also heavily recommended, as seen in *Dead Cells*, where there is still a challenge in getting to acquire the option to upgrade but then it is entirely up to the player to decide whether to gain more healing options or a new weapon.
Optimally, the complexity and difficulty scale with this advance as well.
In general, since player skill level and video game experience differ greatly in players, leaving options like this in the players hand can be great motivation in games where they would otherwise quit before having seen most of the game.
Next is offering multiple ways to solve a given challenge. Most games that feature different starter classes are already made under the presumption that even though they vary in playstyle, each of them can successfully finish the game. There can be intentional differences in difficulty for these characters, but all different playstyles are capable of being successful, and it should be handled no different in other games. In a shooting game for example, there should be weapons and mechanics that support a fighting style of jumping right into the action and catching opponents off guard and also those that allow lying in wait and killing with one well timed shot. Otherwise, players will stop experimenting and grow reluctant to give up the tactic that worked all the times before, which can quickly become boring to them.

Having additional content be available after the game is played through once, or a playthrough is finished in a roguelike is also important to have, lest players think they did everything the game had to offer before that is actually the case.
Weaving story or character growth into the gameplay can also greatly increase replay value, giving separate motivation that is rewarded through gameplay, as seen in *Hades*.
The broad fundament from the Berlin Interpretation is kept in all the games looked at but each of them picked and chose from among them those which best support the core gameplay. Except for the procedural generation and permadeath, or a slightly softer version of it, which appear in all of these games in differing forms.
Balancing those aspects is also important, game designers have to carefully align two things: the explanation of all the core mechanics and challenging players.
We established how players can quickly feel cheated if they get the feeling the game is too easy, too hard, or the challenge it poses is not appropriate to the means it gives players to solve them.
Giving players large amounts of agency to choose and shape the game to their wants and needs is also at great effect here, since difficulty, a big part of balance, can be skewed to fit individual preference.
Players need to be ushered away from dominant strategies and repetitive behavior, punished when they stagnate and prevent as best as possible from too easily cheating or breaking the game.
The most reliable way to achieve this is to test and adjust the game a sufficient amount of times, but even before this, a game designer has to know what the core gameplay of their game is supposed to be. It is the main attraction of a game that everything else is centered around and supposed to enhance and support that main gameplay. This is even more important than having few or no bugs in the game, because a small mistake is easier forgiven than a flaw in the main core of the game.
Replay value, in arguably most cases, is something to strive for when creating games, because not only does it supply players with more content in general, but it incorporates the spirit of game creation, where there is no bigger compliment than having a player enjoy a given game so much they only stop playing after a very long time, return to it regularly or simply never stop playing at all.

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