

Game Design and Flow: How to Design Games to Better Maintain a Flow Experience.

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Abstract

Since 1990, when Mihaly Csikszentmihaly released his book explaining his theory of Flow. Games designers have been working to understand how it applies to the games they make. Now, in 2015, it is well understood what conditions must exist for flow to be achievable. However, what isn't as easily understood, is how can we better design games to maintain that state of flow once it has been achieved? This essay will analyse 3 games, *Diablo 3*, *Skyrim*, and *Ori and the Blind Forest*. To try and get an understanding of how the developers of those games were able to achieve flow, and how they were able to maintain it for the betterment of the players' experience.

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What is Flow?

In 1990, Mihaly Csikszentmihaly released his book *“The Psychology of Optimal Experience”*, in it, he outlined his concept of “flow”. Flow, as described by Csikszentmihaly, is the state of mind a person can find when they are completely absorbed with a task (Csikszentmihaly 1990). Since Csikszentmihaly released his book in 1990, flow has been shown to be applicable to almost any avenue of human endeavour, from surgeons to factory workers, and athletes competing at the highest level of their chosen sport (Murphy, Chertoff, Guerrero & Moffitt 2013). So too has flow been shown to be relevant to the video games industry. Game Designers have spent years understanding how flow, and the characteristics that govern how a person can achieve flow, can be applied to games. At its most basic, flow as it applies to games is concerned with finding a balance between boredom and anxiety. Below is the flow channel as outlined by Curtiss Murphy (2011).

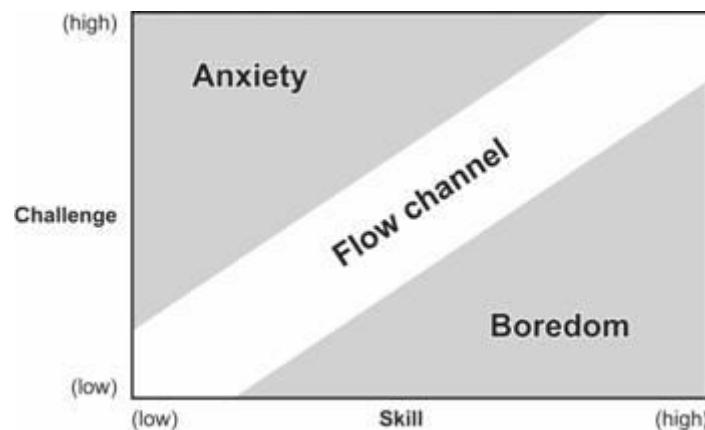


Figure 1: Flow, the balance between skill and challenge

This represents the basic balance between anxiety and boredom, or put another way as it refers to game design, the balance that must be found between challenge and skill. If a game doesn't challenge the player enough, the player will become bored, and flow will break down. On the other hand, if the game is too challenging, the player will become too anxious, and once again, flow will break down (Murphy, Chertoff, Guerrero & Moffitt 2013). By understanding how games can find the “sweet spot” between boredom and anxiety, game designers can better harness flow, both for immersion sake and also as a tool for learning within games (Murphy 2011). So while a great amount of work has been done to try and understand how a person can achieve flow, and the benefits of flow in video games. There hasn't, comparatively, been a great amount of research done on how games can better maintain a state of flow once it has been achieved. Jenova Chen, in his master's thesis described the problem best by saying:

“Much research is being done about how to use Flow to evaluate video game experiences. However, there are only a few researches out there dealing with the actual implementation of Flow inside games.

Methodologies that help game designers to realize and maintain players flow experiences are not well defined” (Chen 2007)

Why then, is investigating how to maintain flow in games important? Flow is the key to improving immersion and engagement with our games. As technology improves, the way people interact with games will be different. The way game designers can present games, through the quality of 3D graphics and better game engines, or more refined game mechanics, will allow game designers to create incredible games. But without flow, immersion and engagement in those games will remain limited. It is through flow that players will experience a greater emotional connection to the games they play. And as technologies like Virtual Reality (VR) become more ubiquitous, the line between real life and fantasy will continue to blur. Through flow theory, game designers can engage people in

a much more meaningful, more fulfilling way, regardless of the technology at their disposal. This essay will explore the many ways game designers might be able to improve the frequency and duration of the flow experience in games. By looking at a few games ranging in complexity, this essay will look at how those games achieved flow, and for how long the flow experience can be sustained within those games, and what could be done to help extend the flow experience.

This essay will be concerned with investigating the flow experience in games within the role-playing game (RPG) genre. RPG's put the player into the role of a character. They ask the player to make choices regarding the characters' appearance, gender, skills, and abilities. As the game progresses, the character and the player grow in experience, allowing for more advanced game mechanics to be used and acquired. This essay will look at how flow is achieved in the RPG games covered, and how the flow experience can be improved to extend the duration of that experience in those games. Each game featured, while belonging to the RPG genre, features differences that will highlight the various approaches game designers can and do take to teach mechanics, give feedback, and show character progression within the RPG genre (Murphy, Chertoff, Guerrero & Moffitt 2013). All of which are vital characteristics to achieving and maintaining flow in games. RPG games as well, possess a complexity that many other game genres lack, and it is for this reason that this essay will focus on games that fit within the scope of that genre. In a few cases, it will be possible to observe how the game has changed once it's been released. By analysing this, it will be possible to gain a better understanding of how the relevant game designers adjusted the game to better engage the player, remove roadblocks to flow, and give better feedback to the players. Importantly, we can judge if these changes helped to create a better flow experience for the player, or hindered it further.

What are the Conditions and Characteristics of Flow?

The main premise of this essay is to argue the case for the development of a better methodology for maintaining flow in games. Each game discussed in this essay will, along with elements specific to those games, have a number of aspects to flow analysed and discussed. To better understand how we can improve the duration of the flow experience, first we must understand how flow can be achieved in the first place. Briefly, there are seven components to achieving flow, and they are divided into conditions and characteristics (Murphy, Chertoff, Guerrero & Moffitt 2013). For the purposes of this essay, I am primarily concerned only with the conditions for flow. That is, what must a game do to create an environment where achieving flow is possible? These four conditions are, providing the player with clear tasks or objectives, clear feedback, concentration/focus (making sure the player is as focused as they can be on their task), and attainable goals. Each game discussed in this essay will mention how that games design adheres to these four conditions, and how, by having some or all of these conditions present in those games, it has allowed for a flow experience to be possible.

In addition to the above conditions, which can be found in almost any game where flow is achievable. This essay will analyse additional aspects of flow that are more closely aligned with maintaining flow, rather than achieving flow. They are the simplification of game mechanics to try and remove instances where flow might break down due to perceived unnecessary additions of extra game mechanics. Or the simplification of game mechanics to remove unnecessary clutter or redundant game mechanics as a result of additions later in the games life cycle. How game designers motivate their players in games, this will primarily be viewed through the prism of intrinsic and extrinsic motivation and the Zeigarnik Effect. The Zeigarnik Effect is the term used to describe the psychological effect people experience when they are presented with clear information regarding their progress towards a goal (Baumeister & Bushman 2008). In games this could take the form of achievements or overall game completion, where the player can access a menu that will clearly display how close they are to completing the games main story line or a specific achievement. Thus motivating the player to continue playing rather than stop or lose concentration for whatever reason.

Feedback is an important aspect to maintaining flow. By giving players clear feedback on the outcome of an action, whether it be positive or negative. The game allows the player to learn and progress within the game (Goetz 2011). Feedback is vital to the learning process in games. How else would a player now when an enchantment has been successfully applied? How else would a player now how much damage they have done to an enemy? All of these systems rely on the timely feedback to game developers have designed into their game. Analysing the feedback of important systems in the game covered is an important step in understanding how games can better maintain flow.

Finally, this essay will analyse how games approach the issues that arise as a result of the paradox of choice (Shwartz 2004). Games present the player with an almost constant series of choices that must be navigated through to be successful. Although choice is largely a good thing, as it aids in helping the player learn and understand the games mechanics (Murphy 2011), without choice it's hard to imagine games being as they are today. The paradox of choice refers to the problem that arises when too much choice is presented to the player. This problem can manifest itself in the form of option paralysis, where the player is presented with too many choices and so, rather than making a choice, will instead decide to choose nothing and stops playing the game. Opportunity cost is another facet to the paradox of choice (Buchanan 1969). When presented with a choice that has a seemingly long term effect on the game. The player will undergo an altogether natural process of second guessing themselves about which decision to make. Opportunity cost becomes an issue because the player begins to make decisions based on the assumption that the decision they are making will have a long term effect. And so, not wanting to miss out on any kind of reward, will seize up. Fearing that by missing out on a reward by choosing one mission or objective over others or some other benefit attached to that decision that they will be making the game harder for themselves. Some long term decisions don't result in this form of paralysis and anxiousness, decisions like what hair colour or other physical traits to bestow on a character at the beginning of most RPG games are largely subjective decisions unique to the player. But binary decisions, where the player can only choose one of many options (and is denied those other options once a decision has been made), are times when opportunity cost can become a problem (Spector 2015). They result in a period of heightened anxiousness that can turn the player off playing the game, and, most importantly for this discussion, can obviously lead to a break in the flow experience.

This essay will prosecute the argument that through better understanding these aspects of flow (in addition to the common conditions of flow), we can better develop a methodology to help improve the duration of flow in RPG games.

Diablo 3

Talent Trees and Flow

"Diablo 3" was developed by *Blizzard Entertainment* and released in 2012. This game was the third in the Diablo franchise, and refined, altered, or removed entirely a number of mechanics that had been synonymous with Diablo games until this point. Diablo games have highly structured gameplay as a core feature to every game in the series. The player spends time within a safe zone (sanctuary) or town, where they can manage their inventory, spend talent points, revise talent decisions, enchant equipment to make it more powerful, and use other systems to help improve their character. Once they are satisfied with their character, and have begun quests that are found in that town, they move out into the game world. In this game world, monsters can be found and killed to award experience. It is in this moment, when the player is no longer having to think actively about their talent choices, the control scheme has been learnt, and the gear has been optimized as best as it can be by the player, that flow can be achieved. The player is, in this moment, simply playing the game, the task (quests) are clear, and through the act of playing the game, progress towards that goal can be made. This is the environment where flow can be achieved most frequently in video games, as it is a good example of a time when players are most concentrated on achieving their goal.

A hallmark of many RPG games, and one of the main methods of character progression in many games that fall within the RPG genre, is talent trees.



Figure 2:Diablo 2 Talent Tree

In Diablo 2, Blizzard elected to use talent trees (as seen in the above figure 1), and the resulting talent trees arguably established the model for how talent trees could be implemented into games in future. The talent trees were made up of a series of tier levels, beginning with tier 1 and moving down the tree until the final tier at the bottom (tier 6). Each talent would be unlocked once the character reached a certain level, at which point the talents would become available to the player to place a “talent” point into the desired talent. Which would then provide to the character either an active or passive effect. However, for the player to get the most out of a desired talent, they must invest multiple points into the same talent. With every talent point spent on that talent providing a boost to its effectiveness. Passive effects fall primarily into the category of a stat boost. This could range from providing a consistent increase to the characters’ skill with a particular weapon (+5% to two handed weapon damage), or increase one of the primary stats available to the player (strength, dexterity, vitality, and energy). Active talents provided the character with new abilities that could be used during combat, or temporarily increase stats to aid in battle or help the character survive an intense fight. In Diablo 3 however, Blizzard decided to come up with a new talent system for the game, and as you’ll see, the new system had a significant impact on the flow experience for Diablo players.

In Diablo 3, the new talent system was reworked to focus more on the distinction between active and passive skills (talents).



Figure 3: Diablo 3 Skill System

As the player levels up through the acquisition of more experience (gained from completing quests and killing monsters), the player will unlock more active and passive skills. The player must then choose which combination of active and passive skills he or she wants to use (as seen in figure 2). Unlike the older talent tree system, there was now no longer any need to invest multiple points in a single talent to boost its power. In this new skill system, once a player reaches the required level for that skill, it is unlocked at all times, and is as powerful as it will ever be, without the player needing to invest a skill point into it. All the player has to do is decide what combination of active and passive skills they wish to use. As the power of each active and passive skill isn't available unless it is activated inside the skill window.

At face value, this kind of simplification would seem to be a positive in so far as the flow experience of the game is concerned. By removing the option permanence (Murphy, Chertoff, Guerrero & Moffitt 2013) associated with making a long term decision about which talent you would like to use. Which in Diablo 2, once a talent is chosen it cannot be reversed in favour of a new talent. Hence it would seem that creating a more dynamic system that allows the player to revise their decisions and choose a new path whenever they like would be a good decision from a design perspective. However, in practice, the implementation of this new talent system represented an over simplification that presented the player with a form of option paralysis (Shwartz 2004). Under the old system, although a player may experience some anxiousness at the impending decision presented once a new talent point is earned through levelling up. That anxiousness is temporary, because once the decision is made the player can move on. And in all likely hood, the player might have already decided which talent that point will be spent on well before they have levelled up.

However, In Diablo 3, the player can never move on as they are constantly trying to optimize their character. The anxiousness associated with the older system has been replaced with the regret players will feel as they constantly second guess themselves about the decisions they've made. The flaw with Diablo 3's talent system from a perspective of flow is that it allows the player to second guess themselves and make unlimited changes to how they want their character's talents to be optimized. And thus replacing a temporary feeling of anxiousness with a more constant feeling of regret about the decisions the player is making.

Inventory Management and Flow

Another key element in the RPG mix is inventory management. In any RPG, items are the primary method for improving a character outside of talents/skills. Items have stat boosts on them that activate when the item is equipped. And as the player progresses through the game, the items that are acquired become more powerful, and bring greater benefits to the character that equips those items. When not used by the character, these items can be stored in the players' inventory, or bags, to be used or sold at a later time. As these items are acquired through "looting" monsters that are killed, or through the completion of quests, it is possible to gather a massive number of new items as a by-product of playing the game, thus filling what available inventory space you have. And ultimately causing the player to have to return home to empty their bags before continuing with the game. Although this might seem like it shouldn't have many implications to flow, it can do, especially for RPG games, where it can be absolutely critical to determining for how long a player can maintain a flow state. This is due to the need to eventually return back to the town or sanctuary to offload unwanted items and free up more bag space. The act of returning home breaks the progression of the game and stops the player from "playing" the game. And by doing so causes any flow state that the player might have achieved while playing the game to stop. This cycle of leaving your sanctuary/home to progress a quest or killing monsters, acquiring loot, completing quests, feeling compelled to return home to sell excess loot/hand in completed quests for the reward, and finally leaving home once again with new quests to complete. Is a familiar cycle to anyone who has played many RPG's over the years. The flaw with this cycle is that the act of returning home breaks the flow experience, and this is the case in Diablo 3.

The answer to this problem is to try and delay the need to return home as much as possible. Which sounds simple in theory but in practice is difficult. This is because storage of items in almost any RPG game is limited. Especially when it is storage on the character. There have been many different approaches to inventory management over the years, from the Diablo system, where the inventory is made up of grid squares, and each item takes up a certain number of squares (as seen in the below picture).



There has been the system in *Fallout 3* and *Skyrim*, where each item is given a weight. And the character can only carry a certain amount of weight before becoming “overburdened” and having that character’s movement speed reduced until some weight is removed. In “*Torchlight 2*”, created by developed by *Runic Games*, the developers found a creative solution to the issue of inventory management and its consequence to flow. They allowed the player to be accompanied by a dog. That dog wore a backpack, and within that backpack the player could store any unwanted items. When ready, the player could send the dog back to town and have it sell all the unwanted gear you had in the dog’s backpack. The dog would then return to the player (who had remained in the game world, killing monsters and completing quests), bringing with it any in game currency that was gained from selling those items. All done without the player ever needing to return to town/home. Meaning the player could continue playing the game, and importantly, remain in flow, but still had options to deal with inventory management.

Diablo 3 moved away from a number of familiar tropes that had defined the franchise up until its release. Unfortunately, from a flow perspective, the changes didn’t improve the game, but instead damaged the possibility that flow could be achieved. Along with this comes an inevitable reduction in the likelihood

that the game can engage the player. With *Diablo 2*, you had a well-crafted game that gave the player opportunities to tune their character, but didn’t run the risk of option paralysis being such an issue. With *Diablo 3*, the pendulum had swung the other way, with the developers deciding to give the player more options in so far as talent management was concerned. The balance that was present in *Diablo 2* was now gone, with the game losing the immersion possibilities that were present when game play wasn’t sacrificed in favour of giving the player a more open talent system. This open talent system presented the player with too many opportunities to change their mind. As a result, it is clear that a stricter more structured talent system would have been preferable. It would have reduced option paralysis and kept the balance between anxiousness and boredom, challenge and skill intact. There are subtle variations on the well-established talent tree model that Blizzard

pioneered with games like Diablo 2 that are better able to support a flow experience. An example of one of these systems is the one developed by Bethesda for their game Skyrim.

Skyrim

Dynamism and Talents

The next game to be analysed in this essay will be “*Skyrim*”. Released in 2011, by *Bethesda Games Studio*, Skyrim puts the player into a Nordic themed world of dragons and magic. The game has rich 3D graphics and incredible music that help to immerse the player into the world that’s been created by the developers.

In Skyrim, the player doesn’t earn experience in the same way that they do in a game like Diablo 3. Instead, the player advances as they use different skills and weapons. Each swing of the sword or cast of a spell improves the players’ skill with the discipline that thing belongs to. For example, if you hit an enemy with a one handed sword, then the players one-handed sword skill will increase, if the player casts a fire spell at that enemy, then the fire spell skill will increase. For all skills available in the game, a maximum skill of 100 is available to the player to train up their skills in whatever they want to use. Unlike in other games, where character experience and skill experience might be separate, if a division between the two exists at all, Skyrim uses one to advance the other. As you gain skill experience in the various different disciplines in the game, you will earn character experience that will level up the player and earn the player points to be used to specialize in traits or perks that align with how the player wants to build their character.



Figure 4: Skyrim Skill and Perk window.

This system, of using the relevant tool to gain experience in improving the use of that tool, is a much more dynamic way of handling an experience/talent system in an RPG. It is less structured than the Diablo 3 system is, and as a result has some advantages and disadvantages associated with it. A major advantage to this, more dynamic system, is that it is much easier to see the effect your progress in the game is having on your character. By using a two-handed sword more frequently,

you are able to do more damage and fight larger and more complicated bosses more effectively with that weapon. Feedback plays a critical role in achieving flow in games. With Skyrim, the game provides the player with a system that produces a great amount of feedback for the player to use. The timing and presentation of feedback is crucial to that feedback being effective. In Skyrim, when the player skills up a weapon or spell, you are informed of that every time with onscreen text cues (as seen below in figure 4) .



Figure 5: Skyrim Text cues provide feedback to players about skill up status.

The player thus becomes aware of the skill up and can immediately begin experimenting with whatever weapon or spells he/she has skilled up, to see how much more powerful or more effective it has become. Unlike in Diablo 3, where the player is compelled to return back to town to read through ability descriptions and weigh up the consequences of using a new ability over an older one. In Skyrim, the act of skilling up a weapon or spell has an obvious and immediate consequence on the player and their ability to progress through the game. Suddenly monsters take more damage and die faster, or spells become easier and less costly to cast, and have a greater chance of landing and doing damage to a target. By doing more damage, or being able to land a critical strike (chance to do double damage a percentage of the time) or spell more frequently, the game becomes more accessible to the player. All while keeping them in the game world. This system doesn't require an extended period of time in a town to understand. And thus makes it better able to not only achieve a flow experience in the player, but helps to maintain it over a greater time.

Character talents or perks, which are earned through skill experience as outlined above, give the player access to a vast array of options to drastically power up the player's preferred method of playstyle (as seen in figure 5 below).



Figure 6: Perk Trees in Skyrim

By investing points into two handed skills, heavy armour, archery, destruction, enchanting, and so on, the player is given an incredible number of options to fine tune how they wish their character to play. None of these talents though, work in the same way as, for example, the Diablo 3 talents, where each option is a new ability the player must come to terms with before using to its most optimal. Instead, the Skyrim talents work in tandem with the skilling up of weapons/spells/armours to complement how the player is shaping their character. If the player is wearing heavy armour the most, then the player will receive talent points as a result of wearing that armour. It is then an option for the player to use those points by investing them into more powerful talents or perks that boost the use of heavy armour. This is reinforced by the way the talents are “gated”, some of the more advanced talents, that would be considered “end-game” talents, are blocked from use by the player unless they have enough skill points in a weapon/armour/spell to use that talent. This functions in a similar way as the level requirement applied to Diablo 3’s talent system. However, the requirements in this system are comparatively easier to achieve. Especially if the talents the player is trying to aim for are a part of a talent tree they are investing heavily in already. Although there is no requirement that the player spend their talent points in a tree that is associated with the types of armour/weapons/spells that they use most frequently. There is an implied need to do so as the act of skilling up a discipline, combined with the decision to invest talent or perk points in the associated talent tree of that discipline, has the potential to very quickly make your character much more powerful.

Skyrim presents us with a fantastic example of how a more dynamic talent system can give the player a more immersive game experience. By rewarding the player with significant progress as a result of completing tasks that are a basic requirement of playing the game. The game makes these tasks incredibly rewarding, and also vital to progressing through the games story. By basing the talent system on a more traditional talent tree system but with a twist, the game doesn’t break the flow experience, this is even evident in the design of the talent screen. With its stars and nebula being so intertwined with the Nordic theme of the game itself, it all goes towards creating a vivid, immersive experience that generates plenty of opportunities for flow. And by giving players a chance to experience flow, you will give them a much more rewarding, emotionally significant experience that they will remember for a long time.

Ori and the Blind Forest

Art and Gaming, together at last.

“Ori and the Blind Forest”, released in 2015 by *Moon Studios*, isn’t a traditional RPG like *Skyrim* and *Diablo 3* can be considered. Rather it is 2D platformer that puts you into the role of one character (Ori), who’s story you gradually progress through towards a conclusion at the end. You don’t pick Ori’s appearance, gender, or any other physical traits associated with the character. Where the game does share traits with a more traditional RPG, is in the talent and quest systems. Where Ori is gloriously separated from *Skyrim* and *Diablo* is in the execution of its aesthetic. Where *Diablo 3* and *Skyrim* are in their own ways grand, rich, 3D or 2.5d experiences. Ori is unashamedly a 2D only experience. The artwork and character movements of Ori, as he jumps and runs and works his way through the world, are simply a spectacular sight to behold and are very satisfying to watch. It’s as if the game itself draws you into its world, and by being able to enjoy this world in all its visual and auditory wonder the act of playing the game becomes a reward unto itself. This, far more intrinsic motivation for playing, is something that is linked with the flow experience.

Intrinsic and Extrinsic motivation, or defined another way, Intrinsic motivation is the act of participating in an activity for the enjoyment of the act itself. As opposed to extrinsic motivation, or the act of participating only for the promise of a reward for participating (Ryan & Deci 2000). Has obvious links to game design and the way in which game designers build their games to provoke the player to progressing through to its conclusion. For *Ori and the Blind Forest*, although there is a structured narrative which results in a definitive conclusion. The game is crafted in such a way that the act of playing the game becomes a reward, and player progression occurs not just in search of an end. But in order to continue experiencing this game world and all it has to offer the player.

Ori has many examples of less intrusive forms of game mechanics. Even compared to the *Skyrim* system explained above, which is an example of a dynamically driven talent system. Ori’s too is driven by the player and his/hers desire to explore and experiment with the games mechanics. And like *Skyrim*, the result is the rewarding of a “Skill Point” which can be invested into a tree of talents that provide Ori with power ups to damage and survival among other things relevant to the player’s progression in the game. Although unlike *Skyrim*, Ori’s system isn’t divided up into Skill Experience and Character Experience. Instead, the player collects orbs that are littered throughout the game world, after collecting a certain number of these orbs the player is rewarded with a skill point which can be spent in those talents. Unlike *Skyrim* and indeed *Diablo 3*, Ori’s talents are simplified into three trees’ that are presented to the player as a linear progression. One talent being a pre-requisite for the next in the tree.



Figure 7: Ori and the Blind Forest talents.

As you can see from the above picture (figure 6). The Ori talent system is a very simple system compared to the much more complicated systems of Skyrim and Diablo 3. This simplicity is crucial though to the game's ability to achieve flow. As it is a system that doesn't demand a great deal of effort to understand, and doesn't allow for the player to change his/her mind after making a decision about which talent to take. Given that at any one time only 3 options are available. The decision making process is streamlined enough to avoid any form of option paralysis that occurs in a game like Diablo 3, where after levelling a few times, the player is suddenly presented with a pool of talents that only gets bigger and more complicated as you progress.

Ori and the Blind Forest asks the player to collect 3 objects which act as keys, allowing you the player to access and complete 3 "dungeons" to restore the forest to life. Like the talent tree's talked about above, with its simplified design and visual style. The menu that records the progress of which objects the player has collected and which dungeon has been completed is also simple and easy to understand. But, more importantly from a flow perspective, the design of this menu, and its status as the default menu that appears immediately after a player presses "Start" (pause). Is that it is an example of the Zeigarnik Effect at work. The Zeigarnik Effect is a psychological term used to describe the tendency people feel to experience intrusive thoughts about an objective that was once pursued and left incomplete (Buchanan & Bushman 2008). In its simplest form, an example of the Zeigarnik effect at work might be the use of a simple percentage value presented to the player at game start or during a pause state to quickly show how much of the game is complete, and thus how much is left. Achievements, such as those used by Microsoft on their Xbox Live service, are also another example of the Zeigarnik effect at work. The pursuit of achievements and other forms of rewards are also an example of extrinsic motivation techniques. The player is motivated to continue to play because he/she can see and is reminded often during gameplay about how much of the game is completed and how much there is left to go. Or they can see very easily the current status of an achievement, and how much they need to do to reach that achievement, and so will continue to play in order to reach that goal.

Ori very clearly gives the player feedback on how far they have progressed, and how far there is left to progress until the game is complete. But the game doesn't hold the hand of the player, and force them to complete the game in a linear way. Instead, the player can complete the game however they wish up to a point. Ori and the Blind Forest presents the player with the entire game world at

the beginning of the game. And allows the player to explore that world at their own pace. In this case, progression is halted only when a player lacks a required skill to reach an area of the map. In this case the player must find where that skill can be acquired before moving on. This skill could be located at any point on the map, even in some places the player might already have explored. If the player misses a hidden path, or doesn't destroy a destroyable rock or other object that might block the path of the player, then that skill will remain frustratingly hidden. This freedom of exploration, when taken at face value, could seem like a good thing, but when a point is reached where the player can't continue without first finding the required skill. The options of where that skill might be found are numerous, and so once again, option paralysis becomes a factor in prohibiting flow. Although the player is actually playing the game to search for the required skill, this playing isn't done as part of the natural progression of the game, instead the player is left to wander aimlessly through the world until the skill is found. It is also a significant departure from games like Skyrim, where, although the player can and does wander around the game world at their own pace. In Skyrim, that wandering is always rewarding, as the game world is so full of things to find, that the player is never left with nothing to do and thus is never left to wander aimlessly in search of some vital object that will allow them to progress the game. In Ori and the Blind Forest, once an area has, seemingly, be explored, there is little incentive to return, unless the player believes something has been missed. As the game progresses, and more of the world is explored as part of the natural progression of the game, the number of options for where something hidden might be becomes alarmingly huge. Furthermore, the text shown at times during gameplay that is designed to help guide the player onwards, only indicates where the next dungeon or object is to collect. It doesn't guide, nor explicitly show where the required skills are to be found. This can cause frustration with the game, and subsequently cause a break in flow.

Ori and the Blind Forest successfully executes a style that is both artistically satisfying and compelling to play. The movement of Ori and the other NPC's (non-playable characters) and monsters is seamless and vividly detailed. The game's talent trees are effective without being too obtrusive to the flow of the game. And the progression is simple to understand but complicated to achieve. This then, is perhaps the best example of how to maintain flow in games. The game is simplified without becoming too easy, it challenges without becoming too hard. Ori's art and sound immerse the player in its world and the game mechanics don't often break that immersion. Although the game can be frustrating at times, the overall flow experience in this game creates a powerful emotional connection with the player. The player, as a result of how well-crafted this game world is, becomes motivated to complete the story, and the game does its best to allow that to happen without throwing hugely complex systems at you.

Conclusion

Simplification, motivation, and feedback are fundamental aspects to achieving flow in any game. If the player isn't motivated to complete a task, the player will leave the game, If the game is too complicated, and the player hits a wall where the act of making a decision becomes too hard, the player will leave your game. If the game doesn't give the player enough feedback, encouraging the player to continue by telling them they've done well so far, then the player will not experience flow. Flow is the key to immersive gameplay. The conditions that enable a person to achieve flow in any game are also a basic requirement to good game design. In Diablo 3, we can observe how adjusting the game away from what worked in the past, had a massively detrimental effect on the playability and immersive quality of that game. With Skyrim, on the other hand, we see how well executed game design mechanics such as the talent system in that game, can create the ideal conditions for flow to occur. And with Ori, we can see how simplification, motivation, and feedback, when brought together and executed well, can create a game almost ideal for flow.

Flow is the key to unlocking the potential of video games. As the industry grows we must find new ways of designing our games to bring people to them and cut through the now oversaturated market place. By creating immersive, emotional games that leave the players with lasting memories. We as designers can create experiences that will take this industry to the next level. We understand how flow is achievable, but our desire to push the boundaries of mechanics in the past has lead us to forget that good game design isn't always about designing the most complex, new shiny game mechanic or using the most up to date graphics engine. Instead, the art of gaming is finding a style and executing it well, it could be something simple like Ori, or something as complex as Skyrim. But the key is in knowing what works for the game your trying to build, and not over complicating your game with superfluous mechanics or complicated talent systems. Instead it's about challenging the player to push themselves, by giving them the power to choose for themselves how to play your games. And by doing so you encourage the player to keep playing, and by playing your game they can achieve flow, and most importantly they will stay in flow. And every second they are in flow, they are experiencing something so emotionally powerful and richly rewarding that they are reminded that games are the most powerful form of entertainment and learning on the planet.

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