Understanding and Shaping Player Expectations in Video Game Franchises

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Declaration on oath

I hereby declare in lieu of oath that I have done the present work independently and only with the help of the proven aids. All parts of the work, which are taken in the wording or the sense after other printed or in the Internet available works, I have marked by exact references. I confirm that I have not submitted this work for any other examination.

Düsseldorf, 15.08.2019

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Glossary

AA   Attachment-aversion

ACM   Association for Computing Machinery

AI   Artificial Intelligence

CHI   Conference on Human Factors in Computing Systems

DiGRA   Digital Games Research Association

EA   Electronic Arts

GDC   Game Developer's Conference

IGN   Imagine Games Network

IK   Inverse Kinematics

MMORPG   Massively Multiplayer Online Role-Playing Game

NPC   Non-Player Character

QFD   Quality Function Deployment

QMOD   Quality Management and Organisational Development

RPG   Role-Playing Game

SIGCHI   Special Interest Group on Computer–Human Interaction

SMM   Super Mario Maker

TQM   Total Quality Management

USP   Unique Selling Proposition

Abstract

This thesis' purpose is to develop the research into expectations players have toward video game franchises. A thorough understanding of expectations helps developers in understanding their audience and developing their franchise intelligently. The thesis' goal is to present a model that helps developers understand expectations players have toward their work, aiding them in satisfying these expectations while delighting existing fans and new players with game-specific attractive elements.

The thesis' scientific foundation is rooted in marketing and video game player research. The author uses practical examples of existing video game franchises to identify patterns. The research reveals that expectations toward video games are strongly focused on the game's content and its relation to other games in the series. The expectations toward spinoff titles and spiritual successors reveal that expectations toward a single series of games are more significant than expectations toward the franchise as a whole. Besides expectations, the concept of player wishes is identified. Player expectations are targeted toward patterns in a game series, while wishes are ideas players have that would improve their gameplay experience. These ideas can be targeted at a change of existing patterns or the introduction of new elements. Maximizing satisfaction and delight thus becomes a balancing act of satisfying expectations and delighting through the implementation of wishes and attractive quality elements.

At the end of the analysis, a model of player expectations is presented. Its purpose is to determine expectations toward individual elements within games in a series. The model distinguishes between expectations toward theme, world design, gameplay, narrative, aesthetics, and high scope & fidelity. In each dimension of expectations, a feature may be game-specific, series-wide, or part of a pattern across many games a developer worked on in the past. Brand-oriented expectations exist independently of the six dimensions of content-oriented expectations.

The model presents a way to develop a game with respect to player wishes and expectations, briefly discussing developer wishes. The author recommends the application of the model in an established game series and further research into alternative ways of development that strike a balance between player and developer expectations and wishes without alienating the established audience.

Zusammenfassung

Diese Arbeit befasst sich mit dem Identifizieren von Spielererwartungen in Videospielen. Bisherige Forschung zu Nutzererwartungen zu Produkten befasst sich nicht ausführlich mit Erwartungen gegenüber dem Inhalt der Produkte. Ziel der Arbeit ist es, Muster in Spielererwartungen gegenüber dem Inhalt von Videospielen zu identifizieren und ein Modell aufzustellen, das Entwicklern dabei hilft, diese Erwartungen in ihren eigenen Spielen zu erkennen.

Die wissenschaftliche Grundlage der Arbeit liegt im Bereich des Vertriebs, des Markenkerns und der Recherche in Spielerverhalten in Videospielen. Praktische Beispiele von bereits veröffentlichten Videospielen tragen zum Finden von Mustern in der Auffassung bei. Die Forschung zeigt, dass der Inhalt eines Spiels den größten Einfluss auf Nutzererwartungen hat. Es zeigt sich auch, dass Erwartungen gegenüber einer Serie von Spielen stärker sind als Erwartungen gegenüber einer Franchise. Neben der Achse von Spielererwartungen wird die Achse der Spielerwünsche definiert. Erwartungen beziehen sich auf Muster in existierenden Spielen der Serie, während Wünsche Ideen beschreiben, die das Spielerlebnis einzelner Spieler verbessern würden. Diese Verbesserungen können sowohl die Abwandlung existierender Muster, als auch die Einführung neuer Elemente sein. Um Zufriedenheit zu garantieren müssen Erwartungen erfüllt werden, und um Begeisterung zu maximieren müssen Wünsche erfüllt werden.

Aus der Analyse ist ein Modell von Spielererwartungen entwickelt worden. Es hilft beim Einordnen einzelner Spielelemente in Rubriken basierend auf Spielererwartungen zu dem Element. Das Modell unterscheidet zwischen sechs Dimensionen von Erwartungen: Thema, Weltendesign, Gameplay, Narrative, Ästhetik und Umfang. Ein Element kann entweder spielspezifisch, serienübergreifend oder ein Hauptmerkmal eines Entwicklers sein. Markenspezifische Erwartungen sind unabhängig von den sechs Dimensionen der inhaltorientierten Erwartungen.

Das Modell hilft bei dem Entwickeln von Spielen mit Blick auf die Wünsche und Erwartungen von Spielern. Die Wünsche der Spielentwickler werden nur in einem kurzen Abschnitt erwähnt. Der Autor empfiehlt sowohl das Nutzen des Modells in einer etablierten Spieleserie als auch weitere Forschung in alternative Wege, ein Gleichgewicht zwischen Spieler- und Entwicklerwünschen in der Spielentwicklung zu erreichen.

1 Introduction

Connecting with the intended audience is a requirement for any videogame to be successful. While for a developer's first game this process is centered around initially reaching an audience, future games have to maintain and expand the customer base. Understanding audience expectations allows developers to gain insight into public perception of their game franchise.

Most of the presently published research that deals with the topic of how to reach appropriate audiences is targeted towards advertisers for consumer product brands within a competitive environment. Thus, studies like e.g. the works of Gabay (2015), Grant (2006), and Urde (2016) focus on the aspect of connecting with an audience, emphasizing brand image over product content.

In contrast, video games are attractive to customers through their content. This can be seen in their most common marketing means: the trailer. A game's content is a vital metric by which critics and players measure the quality of their experience. However, it is often unclear what impact the omission of any particular feature from earlier titles will have on player perception, or how this impact can be controlled by the developer. Since video games heavily rely on their content, research into the content of a franchise's games and its development between games is required to better understand player expectations. A content-focused extension of the aforementioned research for consumer product brands can help develop this understanding when combined with attractive quality research.

To contribute to the research of player expectations, the following two questions are discussed and answered in this thesis:

- How are player expectations in game franchises shaped?

- How can player expectations in game franchises be adjusted for future titles?

Answering these questions results in a model of player expectations that can be used by developers to identify the public perception of individual features within their games. On this basis, developers can make decisions about the development of features in future titles that satisfy consumers while introducing new delightful elements to the franchise.

2 Theoretical foundation

In the introduction, the author claimed that existing research targeted toward advertisers for consumer product brands could be extended into the context of games to aid in understanding player expectations. This chapter highlights the similarities and differences between games and consumer product brands while establishing the theoretical framework which will serve as the foundation for the development of the model of player expectations.

2.1. Expectations Toward Consumer Product Brands

2.1.1 Brand Anatomy

Customer perceptions and expectations define brands and their development. A company's values, promises, personality, story, tactics, and offerings build a reputation customers come to associate with the brand. For example, Apple's brand is distinctly premium—an identity shaped through every facet of Apple's products, marketing, style, and manufacturing processes. This identity shapes a specific customer experience with the brand, increasing continued engagement and familiarity (Florack & Palcu, 2017, pp. 16-18). Different brands pursue different goals and personalities, based on fundamental principles upon which they establish themselves. This brand core describes the purpose and benefit of the branded goods in the market and only changes gradually over time to adapt to a changing environment (Gabay, 2015; Grant, 2006; Urde, 2016).

Grant (2006) presents a large number of personalities and strategies for brands to adapt to their core marketing, helping shape the brand's individuality. The resulting public appearance is the brand identity, which encompasses aspects customers interact with, such as the brand logo and marketing style.

Schmitt's (2011) model of consumer psychology divides customer engagement into three layers: object-centered, self-centered, and social. When more engaged in a brand's image and products, individual consumers will think of a brand as more meaningful to their own life, building a relationship with it. More engaged customers are likely to become loyal to the brand, consistently purchasing its products over those of competitors. Brand core and identity play a significant role in making a brand attractive to customers.

2.1.2 Fundamental Expectations

Competitors, culture, and the company image as established through other brands[1] influence the public perception of a new product. Product advertising is centered on finding a niche in the market for the product to thrive while adapting to the changing culture over time (Grant, 2006).

A new brand uses its first product to establish its name and public image, which become metrics by which the public will judge future products from the brand. Customers will experience different levels of engagement in the brand and its products, leading to a set of expectations that has been established through a brand's previous behavior and offerings. *Coke II*'s failure in satisfying established consumers of the brand highlights the framework within which successors to successful products have to operate to keep customers satisfied. In this scenario, the new formula replaced the 'classic' taste, and customers searching for the soft drink they were familiar with were disappointed. The Coca-Cola Company tried to reach out to new customers, alienating established customers with high engagement in the product by deprecating the expected taste. The company was under pressure by the public to bring the classic taste back (Haoues, 2015).

The Coca-Cola example shows that high engagement and loyalty toward a brand can lead to passion for the brand's offerings. Haoues (2015) cites a Coca-Cola spokesperson who describes the lesson the company learned from the Coke II incident. They state that Coca-Cola learned that loyal consumers are the owners of their brand. The Coke II situation took place during a time in which the Coca-Cola brand was declining in popularity and was forced to reinvent itself. The juxtaposition of appealing to loyal consumers while gaining traction with new customers is something brands frequently handle by providing their latest products in parallel to established products. This practice allows companies to test innovative and potentially risky ideas in practice before committing to it. In the gaming industry, Nintendo frequently innovates with its new hardware while employing this strategy. Nintendo advertised the *Nintendo DS* and *Nintendo Switch* as 'third pillars' for the business, stating they would continue support for existing consoles after the new console's launch. Only after their success did Nintendo re-brand them as successors to their established hand-held and home console pillars (Iwata, 2015; Metts, 2004; Tapp, 2016).

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1   Assuming a product isn't aiming for a blue ocean—a market previously unexplored by competitors.

2.1.3 Reaching an Audience

Companies often consider the concept of a *target audience*: a demographic that is most likely to enjoy a product or service based on its use and promises. However, marketing a product toward an imagined target audience does not guarantee a product's success with that audience. It is an external approach that observes behaviors of specific groups and markets itself to the most appropriate niche. Practices like targeted advertising on websites increase the target audience's accuracy (Gabay, 2015).

An alternative internal approach, which focuses on establishing a sense of community through interaction with consumers, has gained traction in recent years as brands progressed towards advertising by focusing on inclusivity. This focus on customer adoption rather than a target audience includes several relevant audiences in the development process of the product. The sense of inclusion contributes to high customer engagement. Indie games often use this type of marketing to more effectively build a fan base from the ground up (Grant, 2006). Developers for games like *Worldless* (Worldless Development Team, 2019) and *Elsinore* (Golden Glitch, 2019) post frequent updates to their social media accounts, sharing newly implemented features and teasers. Social media allows developers to interact with their community and lets followers be a part of the game's development (Nuotio, 2019). In the adoption process, expectations toward the product are shaped during the development process, resulting in a more transparent product and helping establish a loyal fan base from the get-go (Gabay, 2015).

Once an audience has been established through either method, continuously appealing to it is key to preserve its loyalty. Attempts at reaching new markets are often made with caution while keeping old products around as a backup.

2.2. Expectations Toward Videogames

2.2.1 Complexity of Games

Unlike common brands for products such as food or clothing, video games are long-term projects composed of many different elements. Games are appealing by the unique experiences they deliver through their content. A game's world provides the framework in which players can interact with and progress through, and every player will interact with the world differently. Elements of a game can often be encountered and handled in different ways, contributing to a player's unique interpretation of the experience. The

result is a unique set of expectations for each player familiar with a game, implying different interpretations of the game's purpose between developers and players. Theories about immersion and player types highlight potential differences between player approaches and how not just a game's content but also its audience is vast and varied. Player's interests do not just change amid one another, but also within oneself over time (Hamari, 2014).

Developers keep the complexity in their marketing low by presenting their game through its similarities and differences to other games. Players learn about genres and gameplay they recognize, as well as a unique, unexpected twist that sets the game apart from its competitors, its unique selling proposition (USP). In marketing, a game's content is distilled into its essence, leaving the details for people who are interested in learning more. As an audience (or fan base) forms around a game, Schmitt's model of customer engagement takes effect once more: communities form around game franchises, leading to expectations toward future titles that continue the concept of the game they enjoy (2011).

2.2.2 Complexity of Players

Developers examine similarities and differences in their games to determine their essence. Players form their own opinions on the essence of games through a similar examination process based on their experiences and preferences. To understand player opinions, it is helpful to examine similarities between them. The genre-independent need of players game journalists most commonly discuss is immersion. Immersion is presented as a feeling of absorption into the game's world, contributing to its authenticity and the gameplay experience. The term 'immersion' is, however, poorly defined. Calleja (2011) examines different definitions of immersion and presents a model together with a new name for the phenomenon: player involvement. Calleja's model, as depicted in **Figure 1**, focuses on the concept of players having a limited pool of attention in any given moment while playing a game. The model's six axes describe dimensions within which players distribute their attention while playing: ludic, narrative, kinesthetic, shared, spatial, and affective.
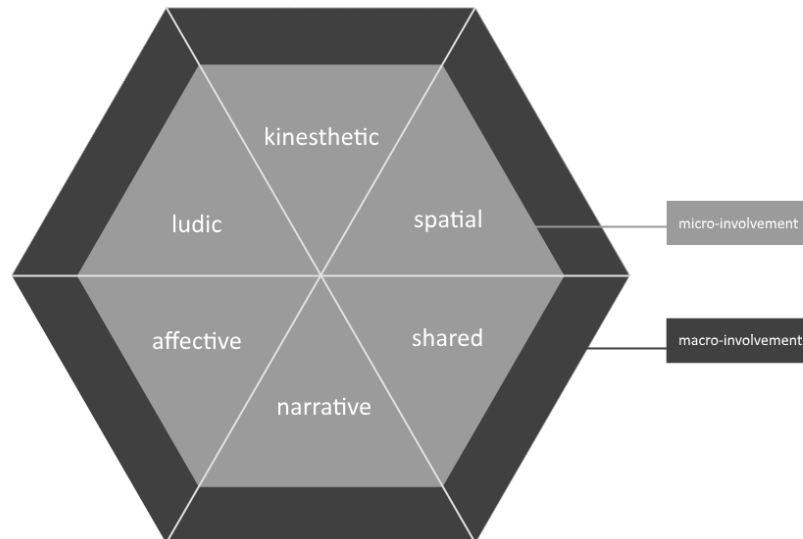
Figure 1. Player involvement model
(based on Calleja, 2011, p. 38; illustration by the author)

For example, players figuring out how to control their avatars effectively will not be able to enjoy the game's environments until the controlling of the character requires less focus. Negative experiences in any of the model's six dimensions can take up the pool of available attention and quickly overshadow positive experiences in other areas. For example, *Yooka-Laylee* (Team17 & Playtonic Games, 2017) was received negatively by some players for its camera controls, which proved to hinder player involvement by forcing players to engage with the kinesthetic dimension in a negative way (Plagge, 2017; Silva, 2017). It is worth noting that not every game needs to satisfy every axis of the player involvement model equally. A single-player game cannot provide as much shared involvement as a multiplayer game. Modern games in the vast action-adventure genre— particularly 3D titles—tend to include features that appeal to as many dimensions of involvement as possible. In *God of War* (Sony Interactive Entertainment & SIE Santa Monica Studio, 2018), players fight their way to the top of a mountain (ludic, kinesthetic). At the end of this area, they take in the beautiful mountaintop scenery (spatial, affective) before advancing to a plot point (narrative) which introduces a new friendly companion character (shared). The sequence from reaching the mountaintop to the introduction of the companion character takes up only a couple of minutes. It highlights both the importance

of appealing to different types of players through the axes of involvement as well as the growing scope and complexity that affects triple-A[2] titles in particular.

Since player involvement describes the dimensions in which players experience engagement toward a particular game, a player's involvement with one dimension may lead to player expectations. *The Legend of Zelda: Breath of the Wild* (Nintendo & Nintendo EPD, 2017) experimented with an open-world formula, using a jigsaw-puzzle-like, nonlinear narrative structure. While some players praised it for fitting into the game's open-world structure (Gies, 2017; Madsen, 2017), others criticized it for its lack of rising stakes and poor pacing (Hinke, 2017; Steighner, 2017). Breath of the Wild is an open-world reboot of the Legend of Zelda franchise that has long relied on linear plot structures. Players perceived narrative involvement differently, depending on how integral they saw it to their interpretation of the franchise's experience.

2.2.3 Games in a Franchise

Game franchises allow developers to expand upon a single game's world beyond the contents of the first title. The most common form of continuation to a game is the sequel, due to its success in maintaining fan interest (Cox, 2013). Since games in a franchise share a world, gameplay mechanics or an underlying theme, players who are familiar with a game's predecessor will know what to expect from it. Entries in annual franchises such as *FIFA* and *Just Dance* are very similar to previous installments due to a short development cycle. On the opposite end of the spectrum are franchises that reinvent themselves with every new installment, keeping very little from previous entries while still being successful. The *Persona* franchise is a prime example, retaining little beyond its gameplay mechanics between games. It features a different underlying message and cast of characters with every new installment[3].

A franchise may include multiple different series of games (see Figure 2). The *main series* is the most prevalent series, while *spinoff* titles branch away from the main series' ideas into different genres and gameplay loops. The spinoffs retain familiarity within the

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2 *Triple-A* (AAA) and *indie* are the most common terms used to categorize video games based on their budget and team size. The term triple-A is analogous to the classification of a movie as a *blockbuster title*. It refers to big-budget games that are developed by major development teams or released by major publishers (Cox, 2013; Schultz, 2019).

3 Persona 2: Innocent Sin and Persona 2: Eternal Punishment are exceptions to this by being directly related. The franchise has seen a significant shift with Persona 3, though, which will be discussed later in this thesis.

franchise through their shared *universe* while deviating from the core series in other aspects. Nintendo's *Mario* franchise has had various spinoff titles across the years which evolved into separate series, such as *Luigi's Mansion* and *Mario Kart*. In addition to these deliberately distinct titles, however, the Mario franchise is also subject to various sequels that were later considered the beginning to a new series, such as *Wario Land: Super Mario Land 3* (Nintendo & Nintendo R&D1, 1994), marking the first entry in the Wario Land series, and *Super Mario World 2: Yoshi's Island* (Nintendo & Nintendo EAD, 1995) kickstarting the Yoshi series. Spinoff titles diversify a franchise through the introduction of separate identities within the franchise. In the process, spinoff titles also introduce a different set of expectations toward their own series. Players do not expect a high-action platform fighter like *Rivals of Aether* (Dan Fornace, 2017) when playing the spinoff dating simulator *Lovers of Aether* (Dan Fornace, 2019). Mapping brand identity onto video game franchises is thus implausible and will only result in a brand identity crisis when observing concurrent series in a franchise. Substituting this term is the idea of the *game core*, and *series core*, which the next chapter will properly introduce.
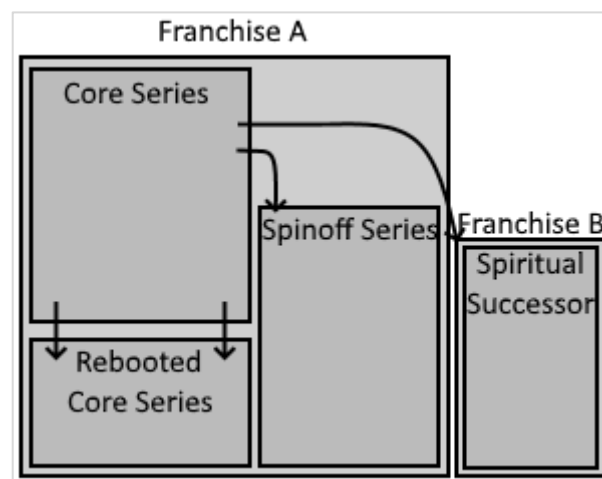
Figure 2. Categories of games in relation to a franchise

While spinoff titles transport elements of a franchise into a new context, reboots aim to reimagine or rebrand the existing series framework (McKittrick, 2019). A reboot is where developer and player interests most commonly clash, as developers discard conventions to take the series into a new direction. In the process, the game fails to meet player expectations toward the discarded conventions. The rebooted game risks alienating parts of its fan base in favor of pushing the series forward. Much like a spinoff, however, a reboot is also capable of enticing existing fans with the new elements introduced to the

series. Furthermore, the abandonment of conventions that have hindered player enjoyment in the past is beneficial to all future titles.

Spiritual successors are the opposite to a spinoff: while spinoffs exist in the same universe while pursuing different ideas to the core titles, spiritual successors aim to emulate the core titles in entirely separate game universes. Whether it is *Mighty No. 9* (Deep Silver, Spike Chunsoft, Comcept & Inti Creates, 2016) emulating *Mega Man* (Capcom, 1987), *The Messenger* (Devolver Digital & Sabotage Studio, 2018) emulating *Ninja Gaiden* (Tecmo, 1988) or Yooka-Laylee emulating *Banjo-Kazooie* (Nintendo & Rare, 1998), these spiritual successors are always directly compared to the referenced title when fans of the latter judge the spiritual successor's quality (Ingenito, 2017; Stark, 2017). Figure 3 illustrates the overlap in game core between core entries, spiritual successors and spinoffs.
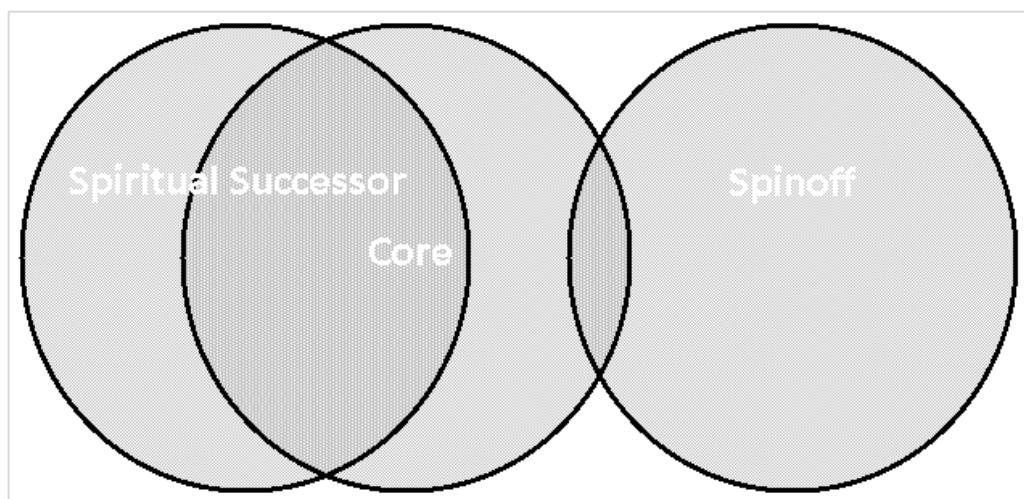
Figure 3. The overlap of a spinoff or spiritual successor with the original game's core

2.3. Core Elements of a Game

The predictability of player expectations toward a game is related to the shared content it has with familiar games and series. This chapter discusses the concept of the game and series cores to develop an understanding of player expectations. Additionally, it will explain the potential of differences between developer and player perceptions of a series' core elements.

2.3.1 Game and Series Core

The game core, similar to the brand core, defines the essential purpose of a game. Beyond a single game's core features sits the series core, which describes shared elements between the games in a series. Surrounding the series core is the game company's very own brand core, encompassing the core values and practices employed by the company.

When playing a series of games, players find the similarities and differences between games, transitioning into their view of a series' core. The shared likeness between two games in a series can influence the perceived size of the game core for the player. For example, players are easily able to compare third-person games in the Legend of Zelda series with its top-down cousins due to their shared plot structure and conventions.

Square Enix takes a different approach with its *Final Fantasy* series: the series makes an effort to continuously reinvent itself by adjusting its game loop and overarching structure. The Final Fantasy series has been innovating its storytelling, world design, and surrounding gameplay mechanics. The result is a flexible core with few anchor points by which to characterize the series as a whole. Different games in the Final Fantasy series employ either real-time or turn-based combat and are designed with varying sub-genres in mind to complement the role-playing structure. Final Fantasy XI (Sony Computer Entertainment & Square Enix, 2002) and Final Fantasy XIV (Square Enix & Square Enix Business Division 5, 2013) are MMORPGs, while Final Fantasy XV (Square Enix & Square Enix Business Division 2, 2016) is a single-player open-world game.

Meanwhile, the games Banjo-Kazooie and *Banjo-Tooie* (Nintendo & Rare, 2000) share an abundance of elements. The sequel expands upon characters, world structure, and available moves at the player's disposal. It omits no feature in the process of expanding upon the first game's formula. The shared likeness firmly established the idea of what a 'Banjo-Kazooie game' is in the mind of players. Even *Banjo-Kazooie: Grunty's Revenge* (THQ & Rare, 2003) maintains this likeness despite the *GameBoy Advance's* technical limitations. But when *Banjo-Kazooie: Nuts & Bolts* (Microsoft Game Studios & Rare, 2008) was released to critical acclaim, many fans were disappointed to find that the game does not follow the established series core.

2.3.2 Unintended Core Elements

When discussing the elements that make up a series core, it is important to both consider developer and player opinions of what is essential to the series in question. As Coca-Cola learned, loyal customers play a massive role in the success and future of a product. Since perceived essential elements are significant contributors to player expectations, the repetition of non-core features across titles can trick players into viewing conventions as integral elements to a series. When the development team for the Legend of Zelda series examined their series to return to its core, it discarded and re-imagined several conventions that the series had accumulated over time. Some fans had grown fond of various elements that were dropped, including a focus on rising stakes and difficulty, a strong focus on the game's narrative, and a multitude of weapons (Arnold, 2017).

The developer perception of what constitutes a core feature can also vary from the player perception even when no prior titles exist. This can be illustrated by the development story of *No Man's Sky* (Hello Games, 2016). When No Man's Sky was initially launched in 2016, it received overall negative or mixed reviews for its lack of content and polish. Fans requested features such as base building on planets and different vehicles to traverse them—elements that complement the game's USP. The game's development team later implemented these features alongside a further polish of existing features. Today many people regard the game as significantly better than when it was first released. The improvement resulted from the player feedback on the game's initially weak core (Jackson, 2017).

2.3.3 Managing Delight and Satisfaction

Managing player expectations is a balancing act between keeping adverse reactions low (achieving satisfaction) while maximizing positive responses (aiming for delight) (Lilja, 2010) as shown in Figure 4.
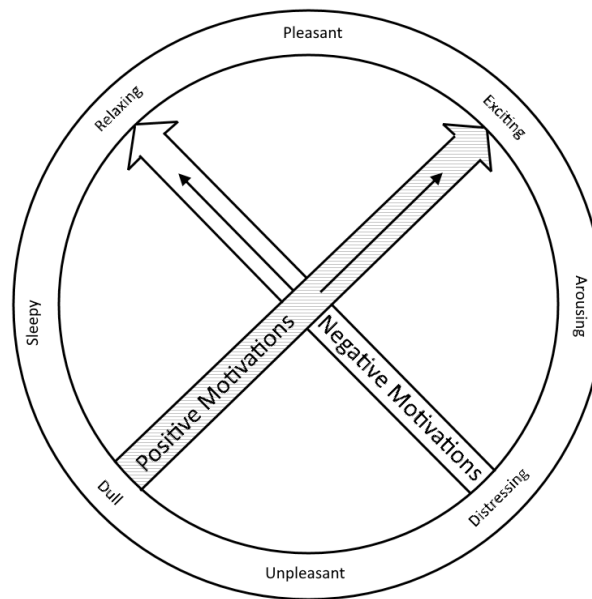
Figure 4. Separation of delight and satisfaction into positive and negative motivational axes

(based on Lilja, 2010, p. 44; illustration by the author)

A lack of unique elements in an entry of a series of games will on the one hand lead to the perception that titles in the franchise have come to a standstill, and that the developers are unwilling to try something new and exciting. An abundance of unique innovations, on the other hand, might alienate players. Such a game may lose the series' identity, cut player satisfaction and undermine expectations toward the franchise.

External influences such as a publisher-imposed release schedule and a finite budget limit how well a game can balance the scale of satisfaction and delight. These influences may force developers with low budgets or a strict time schedule into 'playing it safe' and leaning into expectations, rather than subverting them while evolving their franchise. A high level of similarity between titles, resulting from the safe strategy, further builds public perception of the game's core elements, leading to unintended core elements.

2.4. Beyond the Core

Attractive quality and the concepts of satisfaction and delight are integral to drawing a line between elements within a series' core and surrounding features. This chapter will further develop the established theoretical foundation by introducing Kano's theory of attractive quality (Kano, Seraku, Takahashi & Tsuji, 1984) and Lilja's research on delight

and satisfaction (2010) to integrate it into the psychology of player expectations and reactions.

2.4.1 Kano's Theory of Attractive Quality

In 1984, Kano published his work "Attractive Quality and Must-Be Quality", discussing different dimensions of customer satisfaction and the impact that different kinds of features may have on the customer experience. Many researchers, including Chen et al. (2010) and Shahin et al. (2013; 2017), have adopted and evolved the model to suit different contexts, but for the purposes of this thesis the original version as shown in Figure 5 is sufficient.
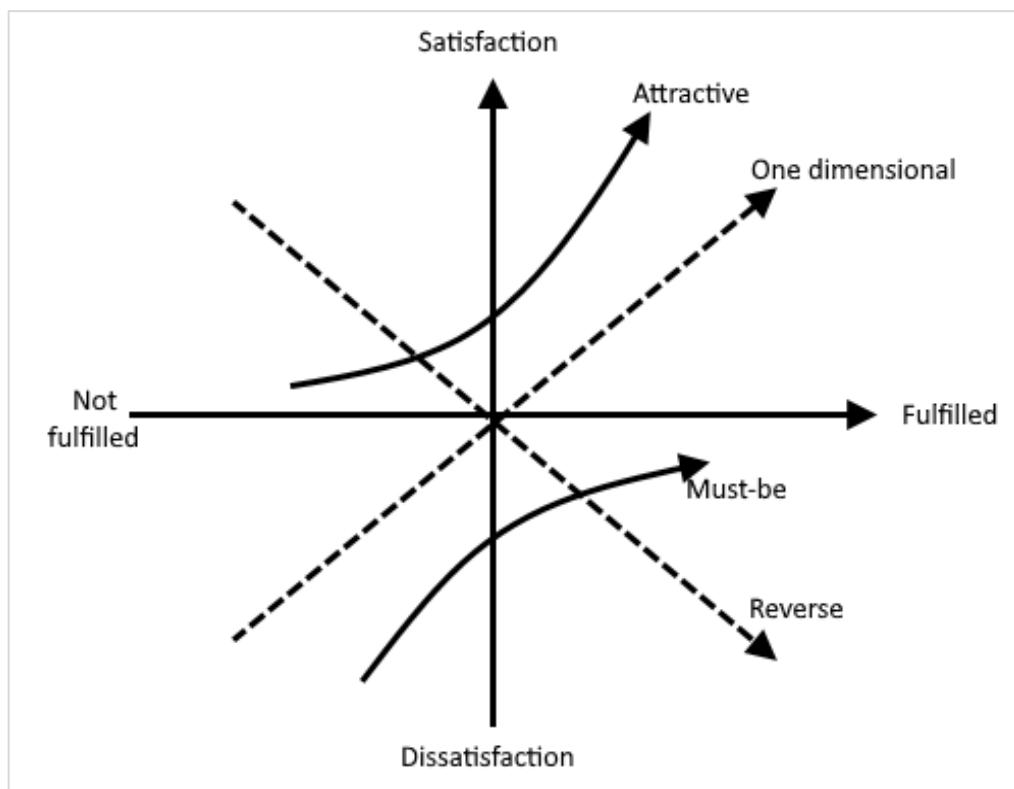

Figure 5. Kano model of customer satisfaction
(Kano, Seraku, Takahashi & Tsuji, 1984, n. p.; illustration by the author)

The model showcases a coordinate system relating customer satisfaction to the level of fulfillment of various elements in a product, which are divided into *must-be, indifferent,* and *attractive* features. For each sort of feature, the model shows how the implementation may create customer satisfaction or dissatisfaction. A brief description of the model's components is given in Table 1:

Table 1. Dimensions of product features in Kano's model of customer satisfaction

Dimension	Description
Must-be	Core features that are taken for granted by the consumer.
Indifferent	Features that are insignificant or remain unnoticed.
Attractive	Leads to delight.
One dimensional	Implementation relates linearly to satisfaction.
Reverse	Implementation relates linearly to dissatisfaction.

The model highlights parallels to the idea of how established elements within a game series core lead to satisfaction in loyal players, while attractive features entice players beyond what they expect from the game.

Every dimension of the Kano model is subjected to a life cycle, in which features of one dimension drift toward another over time: indifferent elements become attractive, then expected (one dimensional), and eventually must-be (Kano, 2001). This development is also present in video games. For example, inverse kinematics (IK), a technology to reverse-engineer the position of character joints to fit the environment, was first used in games in the late 1990s. Titles like The Legend of Zelda: Ocarina of Time (Nintendo & Nintendo EAD, 1998) and Trespasser (Electronic Arts & Dreamworks Interactive, 1998) pioneered the use of IK in 3D games (Richardson, 2012). As video games evolved, so did player expectations towards this feature. It became a useful technique in grounding the player's avatar in the game world, leading to more spatial involvement. The life cycle plays a particularly important role in the context of game series, in which existing titles shape expectations toward new ones (Johnson, Watling, Gardner & Nacke, 2014).

2.4.2 Two-Dimensional Attractive Quality

Lilja's and Wiklund's (2007) research presents a two-dimensional interpretation of attractive quality. He argues that elements of attractive quality are capable of satisfying latent or high-level needs. Lilja and Wiklund distinguish between *surprisers*, *life enrichers*, and *attraction boosters* depending on where in the matrix the analyzed element is situated. Lilja's and Wiklund's model is given in Figure 6:
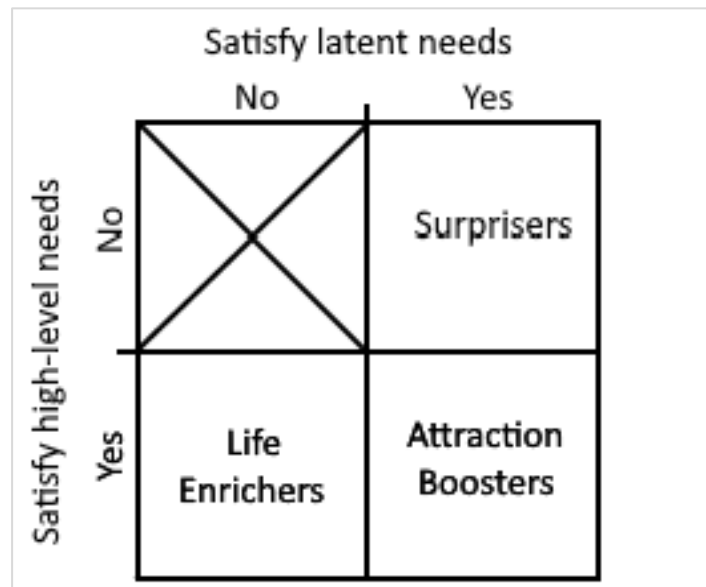
Figure 6. Categorization of game features by satisfaction of player needs (Lilja & Wiklund, 2007, p. 675; illustration by the author)

Attractive quality elements that satisfy latent needs only—so-called surprisers—are presented as tending to increase expectations toward a line of products over time (Lilja & Wiklund, 2007). The aforementioned IK technology once was a surprising element that has become integrated into the mainstream of video game development. As the name implies, surprisers are attractive elements that surprise players and create memorable moments in games. Little details that enrich a game's authenticity like the extensive detail in God of War's (2018) boat mechanics (Rymer, 2018) belong to this category of attractive elements. So do quality-of-life improvements to essential gameplay mechanics such as item collection in Breath of the Wild that happens instantaneously to preserve the flow of gameplay. Life enrichers, on the other hand, are more abstract attractive quality elements that target the consumer's underlying high-level needs. The freedom of exploration in

open-world games, challenges in action titles, and the ability of the player to test problem-solving skills in puzzle games fall into this category. Individual missions in games can build life enrichers into their narrative structure. For example, a mission to find a non-player character's (NPC) lost pet may aim to make the player feel like a just person. The option to pet the animal after completing the quest further validates this feeling. Lilja and Wiklund (2007) theorize that life enrichers can be especially significant in contributing to customer loyalty since they target a customer's deeper desires.

The last dimension of attractive quality elements is the dimension of attraction boosters, a type of element that satisfies latent and high-level needs (Lilja & Wiklund, 2007). Attraction boosters play into the customer's perception of the business landscape surrounding a particular product. Lilja and Wiklund (2007) give the example of the *Fairtrade* mark on coffee packages as a means to satisfy the high-level need of wanting to be somebody who highly values human rights. In games, attraction boosters subvert expected features that are negatively received by loyal fans, such as Zelda's linearity and loot box systems in other games. Developers have been able to generate excitement for games like *Gears 5* (Xbox Game Studios & The Coalition, 2019), *Anthem* (Electronic Arts & BioWare, 2019) and *Battlefield V* (Electronic Arts & EA DICE, 2018) by announcing that loot boxes will be left out.

Managing attractive quality is an essential element in controlling player expectations. Knowing which aspects of a game are well-received and where existing features can be improved contributes to a growing fan base. Heavy reliance on surprising elements that players may interpret as essential elements of the franchise may inadvertently increase the scope of future titles. This follows the principle of Kano's life cycle, as previously attractive elements become expected and thus are necessary in future titles to keep consumers satisfied.

2.4.3 Core and Shell

The relationship between the game core and what surrounds it is shown to be highly dynamic and perceived differently by different people. Previous examples of reboots like The Legend of Zelda: Breath of the Wild, God of War (2018) and Coke II illustrate a strong relationship between a customer's familiarity with the product or series, and their expectations toward future products in the brand or games in the series. A developer aiming to establish a franchise upon a flexible core must limit the amount of reoccurring

non-core elements. Figure 7 shows player's perceptions of the series core in relation to the number of elements shared by all games in a series. The bottom series features a more flexible core through less similarity between titles, particularly adjacent releases. Life cycle influences this perception, as players come to consider newly introduced features as one dimensional quality. Furthermore, the serial position effect (Murdock, 1962) becomes noticeable in game series as more games are introduced. Through this effect, player's perceptions of game series are most strongly influenced by the content of the first and most recent titles in the series.
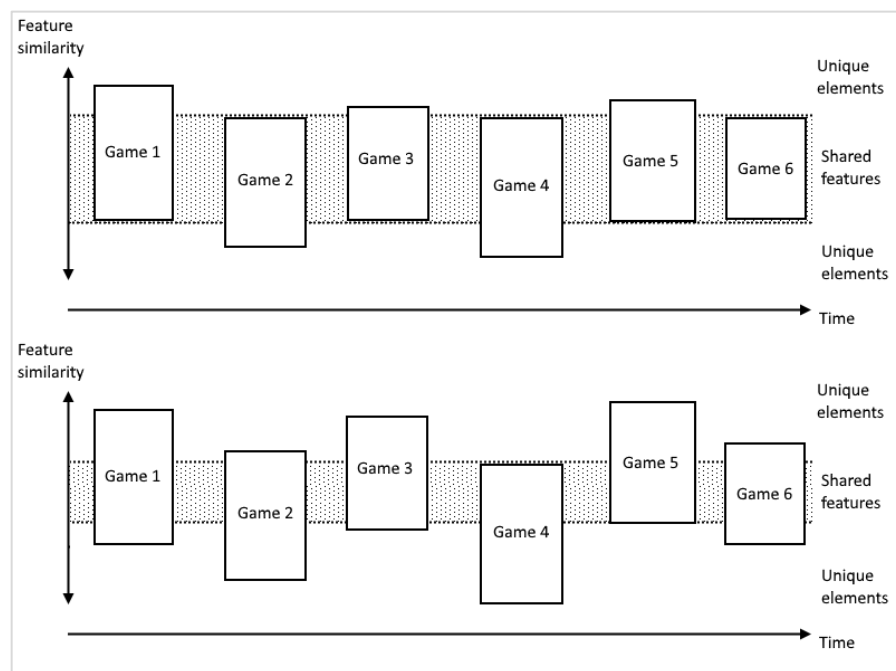
Figure 7. Inverse relationship between number of shared elements and series core flexibility

2.4.4 Player Wishes

After a while, players whose perceptions of a series have evolved over time may look back to earlier titles and consider how previously discarded elements may positively contribute to future installment in their favorite series. In the case of the *Paper Mario* series, Intelligent Systems has drastically changed the series core twice. First, the series moved from a 3D RPG structure to a 2D platformer with RPG elements. Second, it returned to the 3D RPG structure but introduced a new combat system and environments that are more standard to the Mario franchise than the locations in the first games. Fans have been

wishing for a return to the first games' core for a long time, alienated by the shift in tone in newer titles (Sherrill, 2019).

Player wishes imply desired changes between recent and future titles in a series, rather than the desired consistency of standard expectations. The New Super Mario Bros. series serves as a prime example of how a subset of players can direct their expectations towards a refreshing change in a game series. The series consists of four games, all of which were released within six years. Two titles saw their release just months apart: in August and November of 2012 respectively. When describing their burnout with the series, players point to the low amount of variety between titles, as well as their rapid release schedule. While each title features a unique set of surprisers, the low amount of innovation between the games overshadows their significance. Thus, the New Super Mario Bros. series also highlights how a lack of meaningful change between a franchise's entries can lead to boredom and exhaustion. Nintendo later released downloadable content for New Super Mario Bros. U, which significantly altered the game loop and level designs. This change delighted the players who had been wishing for the series to explore new ideas.

While adherence to player expectations contributes to a satisfactory product, respecting player wishes contributes to a delightful product. Player wishes help contribute to a series' future, while expectations ensure the preservation of its legacy.

2.5. Industry Strategies for Handling a Game's Features

The development of game elements differs between studios. Team size and budget in particular have a strong impact on the development process. In triple-A studios such as Ubisoft and Sony, a large number of developers work on a game at any given moment. Creative directors define the framework of elements that shall be present in the finished product before further ideas are suggested and discussed during development. Triple-A studios spend a lot of time testing their games and collecting feedback from external playtesters. If a playtester dislikes a change or addition to the game's features, the studio will often try to adjust it until it is satisfactory. Scrapping the element would cause the time and money spent on it to be wasted (see Appendix A).

Indie studios operate on a much smaller scale, both in terms of budget and team size. As such, individual features outside of the game's initial scope are critically examined and set aside before implementation. The focus is on pushing the game into the polish phase. During this phase, developers implement essential features that they previously set

aside. To save time and resources, the adoptive strategy of marketing can become particularly valuable for indie developers when it comes to implementing attractive features that were previously set aside. Developers can address wishes and expectations directly through social media before building elements that triple-A studios would try to revisit late in an attempt to save them. (see Appendix A; Appendix B)

Either strategy involves a healthy amount of player feedback. The integration of expectations and suggestions into the development process helps polish and improve the game. While for indie developers early development screenshots and descriptions can lead to player-suggested ideas near the start of development, all developers receive most pre-release feedback during the game's polishing phase. At that point, developers have already made all essential decisions about the game's core, and remaining changes are primarily of attractive quality and unable to address fundamental wishes and expectations toward the game's core.

3 Understanding Player Expectations

3.1. Parallels Between Game and Brand Psychology

A significant overlap has been shown to exist between classic brands and video game franchises. Most importantly, the game or series core reflects the concepts of brand core and identity. The game or series core determines the fundamental purpose and personality of a particular game or game series. Unlike the brand core—a set of values the brand abides by—the game core is oriented towards the type of content found within the game. An identifier for a game franchise can be anything from game mechanics to the feeling that players experience when playing the game. Customers and players develop a relationship with a brand or game series they enjoy, becoming loyal customers or fans in the process. As a game series grows, players compare its entries and build a set of expectations and wishes towards future titles. These become the basis of a player's perception of unexpected changes: the perceived core. This perception may differ from the developer's intended series core. However, to keep established fans satisfied, a series' development team must balance delightful innovations with satisfying their established audience.

3.2. Balancing Satisfaction and Delight

The problem with satisfying all conventions is that retreading the same ground with every new installment does not leave room for the game series to grow beyond the established (Palm, Lilja & Wiklund, 2014). As more conventions become accepted by players as part of a series' core, it becomes riskier to discard them in future titles. To avoid fans from being burned out on the franchise, like in the case of the New Super Mario Bros. series, developers must aim to maximize satisfaction and delight. Due to budgetary reasons, maximizing both sides of the scale is only rarely possible. In game development, developers often have to limit the scope of the project to meet deadlines. The most common approach is to 'play it safe' and lean into expectations. This strategy gradually narrows the room for innovation within the franchise. When developers wish to change the core of a series that played it safe, they may opt for a reboot to help set it apart from its predecessors.

3.3. Shaping an Innovative Series

To achieve the goal of establishing an innovative game series with a flexible core, a series' shared elements have to remain recognizable between titles but not overpower each entry's identity. Minimizing the amount of work necessary to satisfy players leaves room for more unique attractive elements to make a game stand out among others in the series. The more flexible the core, the more opportunity exists for developers to follow their vision without alienating players by discarding unintended core elements.

What the author has presented so far points toward the idea that developers are subservient to players, acting upon the will of their fan base while running the risk of releasing a poorly received product if they re-imagine their series' elements. Specific game releases do follow this pattern, such as Banjo-Kazooie: Nuts & Bolts and *DMC: Devil May Cry* (Capcom & Ninja Theory, 2013). However, other games show that, if executed well, the payoff from innovating a long-static franchise can be much higher than the loss from alienating a subset of the fan base, like in the case of God of War (2018), The Legend of Zelda: Breath of the Wild, *Grand Theft Auto III* (Rockstar Games & DMA Design, 2001) and *Fallout 3* (Bethesda Softworks & Bethesda Game Studios, 2008). The success of a title that re-imagines a series is based heavily on the principles introduced: the successful titles aim to maximize delight while retaining enough elements to continue satisfying the majority of the established fan base.

4 Methodology

In the remainder of this paper, the topic of shaping and subverting expectations is discussed to help developers successfully adhere to expectations while innovating their game series. Cores of different games that have been re-imagined will be examined to understand the relation in which various elements of a game exist to each other. This relationship is used to provide guidelines describing the influence that changing one component of a game has over the remaining elements. The most prominent dimensions of game design will be discussed, and for each dimension the following questions will be addressed:

- What freedoms and restrictions does a game have if a selected dimension is part of the game's core?

- What freedoms and restrictions does a game have if a selected dimension is left out of the game's core?

- What unintended consequences may arise if features from a selected dimension are perceived as core elements by users?

- What other dimensions are affected if the current dimension is core in a game?

The author has selected six dimensions for close examination in the practical analysis: theme, world design, gameplay, aesthetics, narrative, and high scope & fidelity. The dimensions have been selected based on previously established contexts in which expectations toward game series may arise. The narrative, gameplay, world design and aesthetic dimensions reflect the player involvement model, re-contextualized as subcategories of game design. The dimension of the theme is included for its influence on other aspects of game design. Lastly, the dimension of scope & fidelity is included for its impact on continued series development and expectations toward a series' consistent or rising quality. In addition to the six dimensions of a game's content, the context surrounding a game (external influences) will also be examined to determine influences on player expectations beyond the game's content. The dimensions discussed in this thesis are as follows:

Theme

A game may choose to build its content around a central theme. This theme is the answer to the question: *What is this game about?* Themes can be abstract, such as religion or rebellion, or descriptive, such as the daily life of a group of superheroes. For this analysis, the author will look at a theme in the sense of an abstract concept, because abstract themes are more distinctly identifiable from other dimensions. While they are not front-and-center in every game, themes play a significant role in games in which they are present. A series with a theme at its core may either put focus on having a unique theme dominating every individual entry or present an overarching theme across all games within.

World design

World design describes the structure of the environment which the player navigates. It is related to spatial player involvement and shapes expectations through memorable setpieces, as well as recurring spatial patterns within a game or series. Easily recognizable patterns are e.g. the dungeon in the Legend of Zelda series or the high tower in the Assassins Creed series.

Gameplay

Due to its importance to game feel and ludic involvement, gameplay is the most common element in a game core. This dimension's analysis examines the exclusion of gameplay from the core and the transmutation of a shared game loop between games. Additionally, modern games frequently employ different styles of gameplay through minigames or other means. Examining whether secondary gameplay systems can become core is also relevant to this dimension.

Aesthetics

Visuals and sound design are worth observing for their influence on a game's mood and style. Aesthetics are a flexible component in complementing different areas of game design, such as theme and gameplay.

Narrative

Like the world design, narrative expectations also relate to the involvement of players. Games typically handle a story across a series in one of three ways: As the continuation of an overarching canon between games, as the retelling of an established story with every new release, or as a heavy emphasis on narrative in every single game. All interpretations will be examined.

High scope & fidelity

Rising expectations are significant contributors to a game series' scope creep. The *Super Smash Bros*. franchise is a prime example of a franchise in which every game increases in scope and fidelity over the last. Meanwhile, the developers of *Star Citizen* (Cloud Imperium Games, 2019) incorporate Hollywood-level visuals into their identity (Star Citizen Wiki, 2012). In a game's world, fidelity is a significant contributor to delighting the player with small details they would not expect otherwise.

External influences: the developer

While game series expectations focus on the product content, the developer's core values surround this set of expectations. External influences through the developer consist of the different ways in which a developer may treat different series or franchises. Surrounding expectations toward games based on the developer's established style are external practices by the developer and publisher. These may include shady microtransactions in games or the quality of the working conditions at the company.

The analysis of every dimension culminates in a model of player expectations that can be used to find out how players may perceive elements across a series. The model of player expectations provides a way in which developers can improve their awareness of the prevalence of single elements in their game series, aiding the goal of shaping player expectations.

5 Analysis

5.1. Analyzing Potential Core Dimensions

5.1.1 Theme

Games and series that put their underlying theme at their core put a strong emphasis on this theme through every facet of their design. The Persona series' themes have gotten popular in recent years with the release of Persona 5. The game puts extensive focus on its theme of rebellion both throughout its story and overall aesthetic. Besides the theme of rebellion, Persona 5 shares an underlying series theme with its predecessors. The shared theme of revealing one's true self manifests itself in how characters in the games summon Personas in combat. Heavy emphasis on both series and game theme in the Persona series has only started with Persona 3, the first game in the series to abandon the isometric perspective of the previous games. Subsequent games recontextualized the theme of the true self into a new narrative while putting a strong emphasis on a subset of the overarching theme. The specific topics are death, identity, and rebellion respectively. The overarching theme catalyzes per-game themes, which in turn influence story and aesthetics.

Franchises like *Far Cry* and *Pokémon* also feature per-game themes which, in the case of their main series, drive the story and motivations of the villain. These games take shallow dives into topics like a doomsday cult, slave trade, or humanity versus nature. Outside of the narrative and characters met, the themes have little influence on these games.

The most prevalent cases of games with shared themes provide either a shared theme across all games or a unique one for each game. The Persona series presents a hybrid solution, in which every game embodies a theme that re-contextualizes the series' core theme of true identity. When it comes to theme as an abstract concept, the idea of a unique theme per game is more common than that of a shared theme without these sub-themes. When part of a series' core, a theme can inspire the content games in the series. It influences the game's story and, in some circumstances, aesthetics. Variations in theme between games in a series do not go against player expectations either, as the presentation of a new theme taps into positive motivations of delight, offering fresh experiences to the player in a familiar landscape. Theme is thus very forgiving in its inclusion in a series' core,

with its inclusion serving more as a means to make the experience feel more cohesive overall.

The theme's most significant influence on other dimensions is on the aesthetic and narrative dimensions. Since theme catalyzes a game's concept, it may be desirable to carry this concept into many dimensions in pursuit of cohesion.

5.1.2 World Design

Most franchises restrict themselves to a specific type of world design based on what facilitates the game's core best. The experience from designing a particular kind of world for the first game in a series can be carried over into the next game and used to improve on the world design as a whole while maintaining a specific direction. This tendency forms a base assumption regarding world design, represented in series such as *Just Cause*, Super Mario Bros., Pokémon, *Call of Duty*, *Tomb Raider* and *Assassin's Creed*. Various series have historically shifted gears in their world design between titles in order to facilitate a change in gameplay. Fallout 3 and Persona 3 transitioned their series from a world designed in an isometric perspective toward full 3D worlds. The Legend of Zelda did not settle into its long-running formula until its third game, A Link to the Past, either. The first two games were an open-world adventure and a 2D side-scrolling adventure respectively. As the series stepped into the third dimension with Ocarina of Time, it featured two concurrently running series with shared core but differing world design. The franchise exists in a state in which two series with the same core coexist, defined through their differing world design.

Nintendo's other flagship franchise, Super Mario, goes one step further in distinguishing between its series. In the buildup to Super Mario Odyssey's release in 2017, series producer Shigeru Miyamoto illustrated the type of game Super Mario Odyssey is. He distinguished between the idea between 3D Mario titles designed for *core* and *casual* audiences, highlighting the side which the new game falls on (see Figure 8). This distinction aligns with the difference in world design, with casual titles following a linear level structure, while core titles feature sandbox environments for players to explore. Fans had previously believed that all 3D Mario titles existed on a single axis which slowly shifted focus toward a more linear type of world design. This return to the core branch In Super Mario Odyssey quickly understood and accepted by fans, some of which had not previously made this distinction on their own. Those fans had expected the series to continue in the casual direction, while many fans wished for a return to the core world design. The

different concurrent approaches to world design here are integral to the audience for any title in the series targets (Nintendo, 2017).
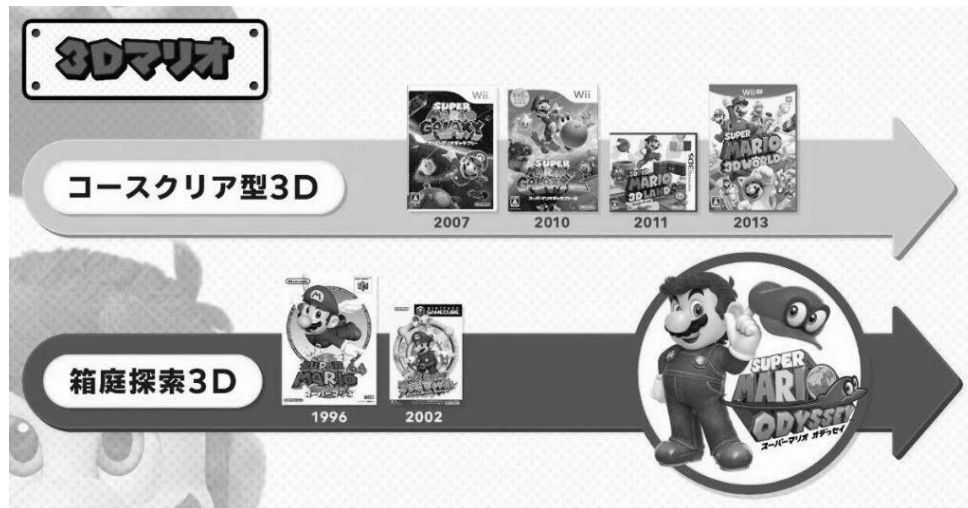

Figure 8. Super Mario 3D titles for core and casual audiences
(Nintendo, 2017)

More significant shifts in genre between titles have the potential to alienate players, like in the case of the *Chibi Robo* and *Pikmin* franchises, which saw spinoffs in the 2D puzzle-platformer genre after previously only featuring 3D installments. These spinoffs were met with mixed reception upon release, as the new approach to world design did not facilitate the core ideas of the franchise. Furthermore, these titles were released during a time in which fans wished for a new core entry, contributing to their negative reception.

Sticking with a type of world design which complements a game's idea thus has benefits both for the game's structure and the series' recognizability. It is easier to craft experiences comparable to those of previous titles in the series by following the same structure. The evolution of the 3D Mario series shows that small differences in world structure, like the shift from a sandbox to a linear structure, do not invite cognitive dissonance on their own. However, a gradual change does contribute to an adjustment of expectations over time. Including world design in the core of a game series further develops the unity between titles while allowing for flexibility within the established genre. The only other dimension commonly affected by a change in world design is that of

scope and fidelity. Open-world titles specifically require high content density in order to flesh out their world and make it entertaining to traverse.

Within the dimension of world design, various conventions such as the puzzle-oriented dungeons in the Zelda series or the high-scope boss battles in the original God of War trilogy establish themselves. While a complete shift in world design is a rare occurrence due to how world design compliments gameplay, the development, and abandonment of such conventions may eventually lead to alienation in parts of the fan base which comes to identify the series with those conventions.

5.1.3 Gameplay

Gameplay is the most common core element of game series, often iterated upon between titles, but rarely changed completely: Ubisoft ensures in its Assassin's Creed franchise that features such as combat remain rigidly defined between titles in order to maintain the feeling that the player is playing an Assassin's Creed game (see Appendix A). The iterative approach to innovating on game loops, in turn, explains the flexibility with which series can handle their world design: Since the design of the world is in service of the gameplay that occurs within, iterative changes to the gameplay may shift the focus in world design when a different style becomes ideal. An example is the case of a more casual Super Mario experience reducing the focus on manual camera control in its world design to ease navigation.

As the gameplay defines the player's presence in the game world, it contributes to player involvement in the kinesthetic and ludic dimensions. A significant change to a series' gameplay mechanics can quickly lead to players feeling alienated, as two dimensions of involvement are directly affected. This dissonance can come from a change to the core game loop or the controls used to play the game. Nintendo frequently experiments with ways to innovate its franchises in new installments. Games like *The Legend of Zelda: Phantom Hourglass* (Nintendo & Nintendo EAD, 2007), *Pokémon Let's Go! Pikachu & Eevee* (The Pokémon Company, Nintendo & Game Freak, 2018) and *Star Fox Zero* (Ninendo, Nintendo EPD & PlatinumGames, 2015) were designed with controls methods in mind that are unique to their target hardware (Bozon 2007; DeFreitas 2018; Tassl 2016). This decision alienated players wishing for a more standard gameplay experience or introduced new issues unique to the specialized control scheme (Tassl 2016, comments on DeFreitas, 2018).

A consistent gameplay formula and (ideally customizable but otherwise) cohesive controls contribute to a feeling of cohesion between titles in a franchise. It allows players who have played earlier titles to quickly pick up and play a new title without having to re-learn the nuances of the game series. Deviations from a core game loop in established franchises are risky, as they can quickly alienate players. Games in a franchise that play drastically different are thus better reserved for spinoff titles to more clearly telegraph the nature of a series within the franchise and guide player expectations.

Since series already gravitate toward a shared gameplay formula over time, cases in which gameplay is merely part of the series shell are few and far between. The Legend of Zelda begun as a top-down adventure before deviating into the 2D side-scrolling genre and then returning to a top-down adventure with A Link to the Past, which ultimately solidified the series' core. The indie series Yooka-Laylee's second game deviates from the first game's sandbox structure by being a 2D side-scrolling platformer, but as no further titles exist in that series yet, it is too early to determine whether or not the series will ultimately stick with a specific gameplay formula.

Since series tend towards an iterative process in their game loop, the amount of unintended core elements that can come as a result of a core game loop is slim. Thus, it is more critical to examine features in a game specifically to find out how likely they are to become conventions. Chapter 5.2 will deal more closely with the scenario of investigating the status of individual features in games.

5.1.4 Aesthetics

The aesthetic of a game is a significant contributor to the tone and visual appeal of the game. Developers often use aesthetics as an opportunity to tie other aspects of games together, such as theme, narrative, and gameplay. The grayscale palettes of *Limbo* (Playdead, 2010) and *Inside* (Playdead, 2016) contribute to their themes as much as *Ōkami's* (Capcom & Clover Studio, 2006) thick brush strokes aid the feeling of spatial involvement in its universe of Japanese folklore (Katakai, cited by Gamespot Staff, 2006). Like in the case of Mega Man, nostalgia can also be a contributor to the choice of art style in a long-running series. Mega Man's core series abandoned its 8-bit aesthetic with Mega Man 7 but later returned to it in Mega Man 9 to increase nostalgia. With Mega Man 11, the series once more discarded its nostalgic aesthetic by switching to 3D models that emulate the feeling and movement of the previous titles. *Shovel Knight* (Yacht Club Games, 2014)

similarly adopted a faux-8-bit aesthetic to pay homage to the games it takes inspiration from in its gameplay. These examples show that developers frequently use aesthetic as a tool to create familiarity or a specific feeling. Generic cartoony or realistic art styles can similarly signal the nature of their game. Series such as the old God of War trilogy, New Super Mario Bros. and Call of Duty maintain a consistent aesthetic throughout their entries in order to highlight the game's personality and level of maturity. The aesthetic of series like Pikmin and *The Elder Scrolls* further emphasizes the setting of these games.

A franchise that does not embed aesthetic into its series core is The Legend of Zelda. It has been shifting between realistic and impressionist art styles in its third-person series while experimenting with different cartoon art styles in its top-down series. The most recent entry—*Link's Awakening* (Nintendo, Nintendo EPD & Grezzo, 2019)—features clay visuals accompanied by a recorder as the lead instrument in its main theme. Leaving aesthetics out of the core allows the Legend of Zelda series to choose an art style that suits any individual game perfectly. A franchise that takes the idea of individually crafted aesthetic even further is another Nintendo franchise—Yoshi. Games like *Yoshi's Crafted World* (Nintendo & Good-Feel, 2019) and *Yoshi's Woolly World* (Nintendo & Good-Feel, 2015) put their aesthetic front-and-center, deriving different gameplay mechanics and settings from their aesthetic directions. The games feature various game mechanics and stage elements that complement the handicraft and wooly visuals of the two games.

An example of a series with a large variety of art styles that lead to an unintended core element is that of the Pokémon series. The series refurbished its sprites with every new generation of games up until the 6th generation, which marked the shift for creature designs from 2D sprite art to 3D models that have stayed consistent ever since. A subset of fans is disappointed by the lack of change in aesthetics between more recent generations, saying that technical leaps between generations do not appear as impressive anymore. The level of difference in aesthetics between games has become an unintentional core element for these people. Meeting these expectations, however, is no longer sustainable considering the volume of character models and animations that developers would have to create from the ground up for each game.

The most prominent dimension affected by a change in aesthetic is that of fidelity in the visual aspect. Visual fidelity heavily depends on the level of detail in a game's aesthetic. Like in the cases of Okami and the Yoshi games, the chosen aesthetic can also directly influence gameplay mechanics—and in turn world design as well—like the celestial

brush in Okami and interactions with loose wool strings in the environment in Yoshi's Wooly World. In heavily stylized games, theme and aesthetics are inseparable, as the aesthetic direction is a theme that influences the entire game.

5.1.5 Narrative

As previously mentioned, developers have multiple options in building the narrative dimension into a series' core. By putting heavy emphasis on their story in every installment, action-adventure series such as Tomb Raider and *Uncharted* generate expectations toward fleshed-out narratives in every installment. Stories in those series resolve themselves before the end of their game while bringing cohesion to the series through a shared narrative structure. In Uncharted, Nathan Drake's search for legendary treasure always kickstarts the adventure. This style of a core narrative structure is commonly present in role-playing video games as well.

An exception to the role-playing game series with a focus on its narrative is the Pokémon series. Games in that series rigorously follow a formula of actions the player takes on their adventure. Main series Pokémon games present the player with a group of evildoers whose side-story concludes somewhere near the end of the player's main adventure to become Pokémon champion. Worth noting is that Game Freak has recently begun experimenting with this structure: *Pokémon Sun & Moon* (The Pokémon Company, Nintendo & Game Freak, 2016) feature seven instead of eight gym challenges and two groups of evildoers instead of one (The Pokémon Company, 2016). Pokémon uses its narrative as a secondary way to excite players for a new installment in the series. Similarly to shared aesthetics, the formulaic story structure perpetuates a sense of familiarity and consistency.

Another form of consistency in a series' narrative is that of the evolving story. Series such as *Metal Gear Solid* and *Kingdom Hearts* feature these kinds of stories in which sequels follow the events of earlier titles directly. This simultaneously appeals to fans who have played every preceding title in the series and are invested in the narrative, while making it difficult for newcomers to comprehend the narrative without prior research. Fans have created guides for new players of the Kingdom Hearts franchise that detail the ideal order in which to play the series' games (Dunsmore, 2017). The positive trade-off for a continued story across titles is an increased investment in the narrative within the established fan base. A series that capitalizes on the benefits of a continued narrative

while keeping the stories of individual games isolated is the *Kirby* franchise. Kirby games follow the formulaic trope of a villain of the week causing trouble, culminating in a climactic battle against the villain or some superior power manipulating them. Cryptic lore segments or visual references flesh out the villain's backstory and their connection to other characters and locations. These nuggets of lore are up for interpretation by dedicated fans. The resulting web of connections has led to large amounts of speculation between fans (Buchalter, 2018).

The story lends a reason for the actions that occur throughout a game. While the formulaic story progression of various game series does not tie narrative to the core to any particular game in the series, it sits at the core of the series as a whole. Story is a prominent kind of gaming experience, difficult to escape even in specific mechanics-focused games that do not inherently present one. Schell describes the idea of games as a *story machine*, a framework that generates stories through the imagination of the player. (Schell, 2008, p.265). Super Smash Bros., which started as a platform fighter without deeper narrative, included an adventure mode in its third game. Leading up to the release of the sixth installment, *Super Smash Bros. Ultimate* (Nintendo, Bandai Namco Studios & Sora Ltd., 2018), fans have been expressing their interest in a new single-player adventure mode. While the series does not include story in its core, wishes and expectations toward a narrative have grown over time. Even in a series light on narrative like Super Smash Bros., fans are developing theories about an overarching plot between all entries. The narrative dimension is very volatile in the way in which players seek story elements in the universes they enjoy visiting. Even arcade-style game series such as *Puyo-Puyo* have incorporated the strengths of narrative investment into their games, including adventure modes in recent titles like Puyo Puyo Tetris (Sega & Sonic Team, 2014) that see a story unfold between Puyo-Puyo matches. Lore and narrative consistency in a game series massively benefit player involvement. As such, even series with a light focus on story are prone to find narrative elements as part of their perceived core after a few entries.

Other dimensions directly affected by a strong narrative presence are world design and the game loop. The relationship between world design and story goes two-way, as story details can be adjusted to account for different settings if complications arise regarding specific settings. Games like Uncharted allow their story to directly influence the game loop, featuring a large variety of gameplay styles between story beats, including third-person exploration, gun combat, and vehicle-based movement.

5.1.6 High Scope & Fidelity

The density and depth of content in games is a significant contributor to a player's involvement in the game environment. Fans highly regard high-fidelity quests such as the optional Anju & Kafei quest in Majora's Mask as great pieces of storytelling (Fontes, 2018). Optional, hidden details, such as a quest which players might miss on their first run, increase replayability. They offer new wonders and discoveries to returning players. A game's fidelity is typically increased during the polish phase of the design process, although some studios like Cloud Imperium Games perform routine iterations to guarantee a consistent level of fidelity in their live-development process (Robertson, cited by Takahashi, 2018, p. 1).

On a per-game basis, keeping a consistent level of fidelity is essential in order to treat each segment of the game with the same level of polish. Players quickly notice areas in games that are underdeveloped in comparison to others. Increasing the average level of fidelity in a game leads to an increase in scope across the entire game, and developers have to spend more time on each area to maintain consistent fidelity throughout. Given a limited budget, the decision to increase the scope of a game can cut into the variety of content in the game: It is a balance between quality and quantity (see Figure 9).
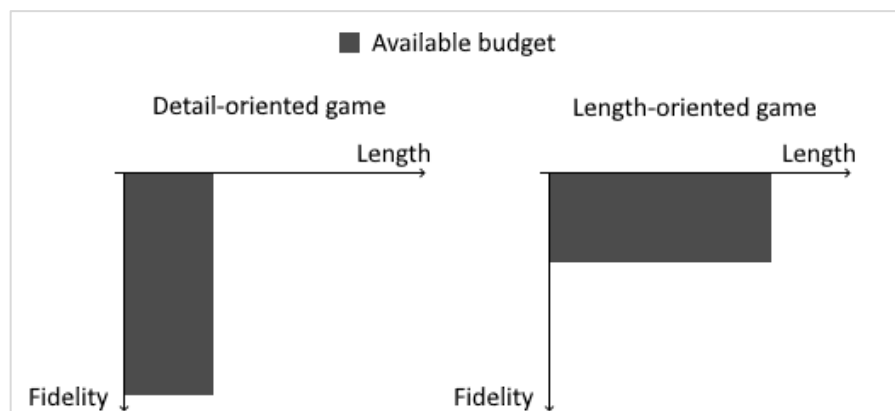
Figure 9. Budget allocation to fidelity or game length

Majora's Mask crafted its intricate quests out of a desire to make the three days during which the game takes place as believable as possible. The three-day system itself

came from a lack of development resources (Aonuma, cited by IGN Staff, 2004). A few modern titles manage to excel both at fidelity and length by increasing their budget in creative ways. Similarly to Majora's Mask, Super Smash Bros. Ultimate re-uses content from the previous entry in the series to speed up development time (Sakurai, translated by Source Gaming Team, 2018). Beyond that, the game re-used its artificial intelligence (AI)-controlled opponents and existing combat framework to craft an adventure mode which would not take a long time to develop. The development team was able to maintain a high level of fidelity throughout the game as a result of asset re-use, simultaneously steering the franchise toward higher fidelity standards through the polish the development team was able to include.

Similarly to how players will notice areas that have a relatively low amount of fidelity within a game, they are quick to notice a drop in fidelity between games in a series. In a Famitsu column, Sakurai has stated that the recent achievement of including all veteran fighters in Super Smash Bros. Ultimate is unlikely to happen again, given the large amount of companies involved. As a result, the next game is unlikely to meet all fan expectations toward the return of their favorite fighter (Sakurai, translated by Source Gaming Team, 2018). Star Citizen faces fidelity-related complications in its development as well. The game was initially announced for a release date in 2014 but has since been delayed repeatedly because of its iterative polishing and ever-growing scope. At the time of writing, the game is still in development (Takahashi, 2018).

In the context of triple-A titles, expectations toward a game's scope are growing proportionally to the capabilities of the target hardware. Coupled with developer wishes, this leads to a spiral of rising fidelity (Robertson, cited by Takahashi, 2018, p. 1). Developers of big-budget titles spend large amounts of time on individual components to maintain the expected level of fidelity throughout their game. Rymer (2018) details the development process of God of War (2018)'s boat his developer blog post. With hundreds of unique voice lines and animations, the boat sequences highlight the rising costs of development necessary to meet a high standard of fidelity. The positive reception to the game's high attention to detail shows that God of War (2018) surpasses contemporary expectations toward fidelity, creating attractive quality.

Including a set level of fidelity in the series core is an effective way to limit scope creep. Series like Assassin's Creed, Super Mario Bros., and Tomb Raider have maintained a constant level of fidelity in their recent entries, satisfying expectations regarding fidelity

and incorporating surprisers into other aspects such as world design, gameplay mechanics, or story instead.

5.1.7 External Influences

The previous dimensions shape player expectations toward games in a series based on the series' content and identity. This segment introduces two rings surrounding expectations toward a series: common practices by the developer, and meta-practices by the developer and publisher. When moving further from individual games toward broader subjects, the audience affected by this influence shrinks.

Developer and publisher influences can only take effect on players familiar with various games and series created under their names. When it comes to external practices, a player's high-level needs of supporting a good cause come into play. People are hesitant to support the art of individuals and companies whose actions do not align with their morals. At the time of writing, the subject of bad working conditions for employees at video game companies is particularly important in the industry (D'Anastasio, 2018; Schreier, 2019). While its influence on player wishes is significant, the topic is too broad in scope to be discussed any further in this thesis.

One step closer to expectations towards the game series is a shared style between games by a single developer. Miyazaki, a director for games by FromSoftware, is famous for establishing the souls-like genre of games through *Demon's Souls* (Sony Computer Entertainment & FromSoftware, 2009) and *Dark Souls* (Namco Bandai Games & FromSoftware, 2011). He continues designing games in new franchises using elements representative of the soulslike genre, such as *Bloodborne* (Sony Computer Entertainment & FromSoftware, 2015) and *Sekiro: Shadows Die Twice* (Activision & FromSoftware, 2019) (Silva, 2015; Kain, 2019). This similarity creates a strong sense of familiarity for players that have played previous games he directed. While the scope of the developer in the context of player expectations is hardly as prevalent as the scope of the series, it can develop expectations when a developer exhibits a consistent personality through their craft.
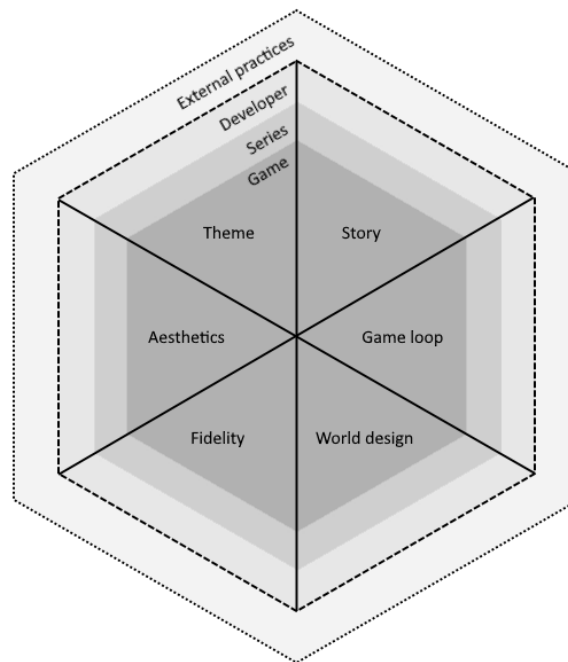
5.2. The Model of Player Expectations

Figure 10. The model of player expectations

The model of player expectations presented in Figure 10 summarizes the previously discussed dimensions theme, story, game loop, world design, fidelity, and aesthetics. The hexagonal model serves as a canvas to position a game's features on to visualize its content in relation to expectations. The four hexagonal rings display the layers of player expectation: game, series, developer and other external practices. At the center lie the players' expectations toward the individual game, describing the game's anticipated individuality and unique elements that set it apart from other games in the series. The per-game expectations are surrounded by expectations toward the game series as a whole. Observing these two layers simultaneously reveals the unique hooks of a series' game and the dimensions in which the game has unique hooks to begin with.

As the analysis concluded, the game's unique elements contribute to player delight due to their attractive quality status as surprisers (exciting details), life enrichers (appeal to high-level needs) or attraction boosters (USP). The next ring is used for elements of the series' core. Adhering to elements presented within it will satisfy established player expectations. The game and series rings can be regarded as the content-oriented center. Surrounding this content-oriented center of the model is the brand-oriented border. The

border describes expectations players have toward developers working on the game, as well as the company's core values and external practices.

Game elements can be accurately placed on the canvas through an investigation into their nature and context:

1. Determine the dimension of the feature that needs to be examined.

2. Compare its presence in the current title with its presence in previous titles.

3. Gauge its future impact on the series through a set of questions.

4. Place the feature in the appropriate field of the hexagonal model.

The application of this model to a game series can approximate a player's perceived core and thus identify features that players have come to expect. In order to do this, the representation of a feature and its fan perception must be combined (steps 2 and 3). The combination provides an overview of an element's current reception and allows the developer to innovate while respecting established player expectations.

By putting together a group of examined elements that belong to the same dimension on an instance of the model of player expectations for each game, distinguishing features between games become visible. In order to aim for delight and satisfaction in one of the model's dimensions, a game's elements must provide a mix of shared elements and unique features. In addition to contributing to satisfaction and delight, this combination helps set games in the series apart. The exception to the idea of uniqueness in the game layer is the dimension of fidelity, wherein a different average fidelity between games can lead to scope creep in future titles. Such scope creep eventually leads to a situation in which a forthcoming title must drastically reduce its scope in order to be reasonably creatable within the available time and budget. By contrast, a low amount of fidelity in a previously high-fidelity series can quickly lead to disappointment among fans who will perceive the game as rushed. The dimensions of the model of player expectations are aligned to be neighboring dimensions they commonly influence. While a heavily stylized game is capable of influencing every facet of its design through its core dimension, most games will merely adjust adjacent dimensions. For example, a switch from a realistic aesthetic toward a heavily stylized cartoon aesthetic lowers the required texture fidelity while crafting a mood that lends itself to a different set of themes.

In the following segment, the four steps of the model's application are described in more detail.

Step 1: Determine the dimension of the feature that needs to be examined

The model of player expectations is applicable to features of any level of significance that fit into the dimensions presented on the hexagon. It can help determine the effect of a new gameplay system as well as minor alterations made to a gameplay system. To begin the examination, the affected dimensions must be determined so that the affected kind of expectation is clear. As an example, the history of the Home Run Contest minigame in the Super Smash Bros. series will be used. This minigame is a small bonus game included in the majority of the series' games, providing a side-activity for players who enjoy high-score hunting. Since this minigame is a gameplay mode in a larger game, the dimension it affects is the gameplay dimension.

Step 2: Compare its presence in the current title with its presence in previous titles

When examining player expectations and making decisions about the series' future, it is important to look back at the feature's past and its future. The former is the subject of this step and relates to iterations of the feature that existed in previous installments.

An empirical study of the feature's presence and design in series' history can be conducted to create an overview over its consistent elements and changes. Table 2 showcases this, using the Home Run Contest as an example. The detailed description of changes between versions is essential in determining individual elements of a feature that may have become expected. Identifying these elements allows developers to make smart decisions about the anatomy of a feature across their series.

Table 2. Changes in Home Run Contest minigame between Super Smash Bros. games

Home-Run Contest in Super Smash Bros.	
64	N/A
Melee	First iteration
Brawl	2-Player Mode, quality of life changes
3DS/WiiU	Quality of life changes, global leaderboard, 4-player competitive mode (WiiU only), new "Target Blast" mode which plays similarly
Ultimate	N/A
████████████████████████	
Reoccurring minigame mode since Melee Absence in Ultimate puzzled the community	

At the time of writing, Super Smash Bros. Ultimate's development team is still frequently updating the game, introducing new modes and re-introducing old ones. While the Home Run Contest is currently absent, it is unclear whether this will change in the future. Table 2 details that the minigame has gotten more refined with every installment. In its most recent iteration, it was placed beside a Target Blast minigame that plays like a spinoff of itself. The continued refinement hints at the Home Run Contest having become a staple minigame for the series across its entries, indicating that expectations may have formed around its presence.

The results of the internal study can be verified by observing fan discussion threads and examining fan responses to the selected feature. Besides reaffirming or contradicting the internal assumption, the observation of fan discussions reveals the public perception of the feature in previous installments. This might reveal ways in which the feature can be further improved in future iterations.

Step 3: Gauge its future impact on the series through a set of questions

While step 2 shines a light on a feature's past, the third step helps examine its future relevancy through a set of questions that determine the feature's significance to the series as a whole. The questions presented in **Figure 11** help approximate a features' future perception and determine the risk of an element becoming conventional by distinguishing

between core, convention, and neutral features. The flexibility in discarding, adjusting, or reimagining increases as an element moves down the ladder. Essential features are guaranteed to be perceived as core elements. Recurring elements have a high chance to become expected as they are included in multiple titles in the series. Players may come to expect improvements to core elements as features that contribute to the overall quality-of-life when playing the game. No expectations arise only from elements that fit into none of these categories.
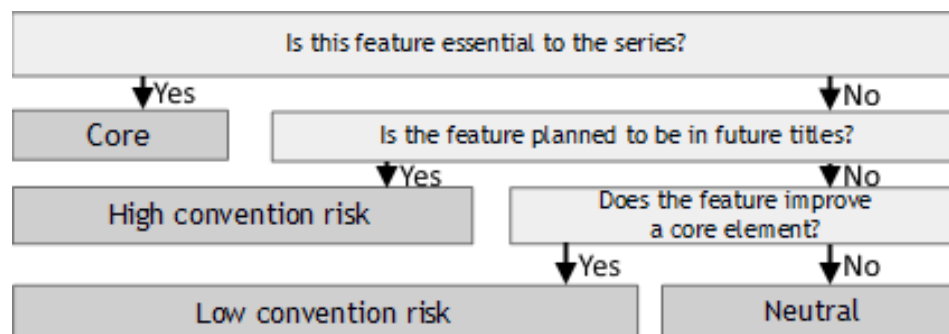

Figure 11. Checklist for determining convention risk of individual game features

The Home Run Contest has existed in the Super Smash Bros. series for a long time. To illustrate the checklist, it will be applied to the feature with retrospect on how the feature was handled since. The Home Run Contest is not a feature essential to the series. It was absent in the first game and overall exists as a minigame to increase gameplay variety. It ended up having a high convention risk through its repeated inclusion in games since *Super Smash Bros. Melee* (Nintendo & HAL Laboratory, 2001). The quality-of-life adjustments to the feature meanwhile fall into the category of low convention risk due to their improvements to the minigame's gameplay formula.

Step 4: Place the feature in the appropriate field of the hexagonal model

Steps 2 and 3 shaped an understanding of the feature's current position in the context of the game and its series. The last step is to place the selected feature on the correct layer of the hexagon. E.g., the Home Run Contest as a game mode exists on the layer of series expectations through its legacy and continued improvements that carried over between installments. Expectations toward its inclusion were not met in the newest

game. The author assumes that this particular feature was cut due to its relatively small significance in the context of the larger game and strict development schedule.

6 Reflection

By using the model of player expectations, developers can gain an overview of a change's impact on expectations. When used solely internally, the model is unable to determine the fan base's wishes toward future titles and the emotion players have toward specific elements of a game. The users' opinions must be extracted through research in the game's community and playtesting, as is done in the industry already. The combination of these methods provides a thorough understanding of wishes and expectations toward a game series, making it possible for developers to adhere to and positively subvert player expectations. By knowing every feature's significance to player enjoyment and the series itself, decisions about omission, subversion and improvements of individual elements across a series' life can be made more intelligently. Positive subversion of player expectations plays into player's wishes, focusing on delighting the player over satisfying them with previously established conventions.

The applied methodology consists of an examination of existing franchises in the industry and the derivation of common characteristics. While this method provides an overview of patterns in the industry that have worked in the past, it is prone to edge cases that influence the statistic in unpredictable ways. Furthermore, the applied method carries with it an inherent survivorship bias amid large, loyal fan bases that express their wishes and expectations online. The methodology is successful in establishing a general scenario but is not fit for refining this scenario and thoroughly addressing such edge cases.

7 Conclusion

Research has shown that expectations toward any game series outweigh the significance of expectations toward its franchise as a whole. The successful handling of a game series requires an appeal to player wishes and expectations. Balancing satisfaction and delight allows developers to steer player expectations by appealing strongly to player wishes while also making the game core more flexible. A more flexible game core will enable developers, in turn, to handle a game series more creatively in the future without alienating its audience or resorting to a series reboot. The presented method of using the model of player expectations to understand and innovate a game series provides a way for developers to balance fan and developer interests. It contributes to the goal of crafting a flexible series core that does not alienate loyal fans.

This thesis concludes with a strong emphasis on conforming to player wishes while maintaining a series identity, but only shines a brief spotlight at a developer's preferences for a franchise. One edge case which is thus not extensively covered is that of a franchise reboot as a means to hard-reset a franchise in order to re-align it to developer wishes. Besides a gradual adjustment to a series core as presented in this thesis, immediate solutions to a rigid series may also have similar effects if handled appropriately. The idea of creating spinoffs or new franchises whenever desired by the developer is also interesting to examine. These edge cases generally suffer from a lack of available material within the game industry, however, as the vast majority of series 'play it safe' in order to maintain their fan base.

Due to the scope of this thesis, the critical practice of testing the model of player expectations could not be covered. The process of establishing a game franchise for testing the model would take several years. Future work should apply the model to the development of a long-running series' game to test and further develop the presented approach.

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Appendices

Appendix A. Interview with Thomas Vogel, employee at Ubisoft BlueByte and professor at the Mediadesign Hochschule in Düsseldorf, from 11 July 2019 about game series handling in Ubisoft (translation by the author; originally in German)

Author (A): In my original hypothesis of high vs low relationship games I suspect there to be very granular ways to tune the relationship between specific features. Is the subject of maintaining or subverting a level of relationship between titles something that Ubisoft does for its titles?

Vogel (V): Do you mean within a franchise or across different franchises?

A: For the evolution of a mechanic, the relationship within a franchise is stronger, so within a franchise.

V: Yes, that's what we have creative directors for. At the start of development, the creative director—we have multiple at ubisoft since we're a big studio—decides on how the next game in a franchise should be like. In terms of things like audio and combat, too. In Assassin's Creed, our creative directors always make sure to maintain the feeling of combat between titles, so that players who are familiar with it do not feel alienated by a sudden change. So keeping the roots definitely is desirable.

A: Right, because when those are shaken up too much, people will say "it does not feel like this game anymore."

V: Correct. We are working on this new Settlers title right now, with the creator of the original game, and the creative team decided to maintain the rule-set of the original game exactly. Of course, there is much discourse within the team as well, with people having vastly different opinions on that decision. But we said we wanted to make a traditional game, and the creative directors always have the last laugh, so to speak.

A: So for those new ideas that's something where someone might say "this would be better fit for a new IP", right?

V: Right, but there are so many of these ideas that you end up with a pile of them in the backlog which are quickly forgotten and never really picked up again.

A: Ah, so spur of the moment ideas which aren't cool anymore after two weeks.

V: Exactly. But maintaining this relationship isn't always intentional, either. Sometimes stuff comes up during development that contributes to a specific area, and sometimes the internet ends up being the entity that decides on what becomes a staple of a series, like for example those "Ubisoft Towers" in open-world games.

A: So the mix ups are more along the setting in that case, since that's easy to change.

V: Yeah. Another good example are games in the Far Cry series, which always cut into a political topic, but only very shallowly, in order to maintain that identity and, as you say, relationship, too.

A: I see. From my hypothesis, the level of expected relationship can also vary between franchises, though. For example, if a franchise were to establish itself as having relatively low relationship to other games that follow, people ought to be more willing to try out the new game despite differences in gameplay or another aspect. I'm thinking of Kirby games for example, where there's one "main" series which carries with it the copy ability gameplay mechanic, but once you venture out into the games that release in between those, you might find yourself controlling a ball Kirby with a stylus with no traditional platform mechanics anywhere. It seems those are largely carried by their aesthetic similarity.

V: For sure. You see something like that happen in the MOBA market right now, too, with Riot Games' and Valve's new games.

A: Oh, those auto-chess games? What were their names...

V: Yes, those! Those games basically share nothing with their predecessors except for their character rosters, and people are loving them. I tell you, auto-chess will be the next big thing.

A: Yeah, the fact that they both jumped onto that at the same time...

V: Their marketing teams just know what they're doing and there's a giant market for them to tap into with the idea.

A: Okay, another question I have is whether you at Ubisoft have specifically experimented with breaking a relationship in a franchise and noticed whether it ended up good or bad?

V: That comes down largely to the playtesting phase. We do a lot of playtests, both from the local area as well as internationally, and that's where those ideas get tested. Our rule of thumb is that if an idea gets criticized by over 50% of the testers, it will get a critical look from the developers and potentially reworked. We're always trying to save an idea and turn it into something good, because there's a lot of time that goes into each idea, especially in triple-A studios, so these iterative tests really help find and deal with negative responses to experimentation.

A: Yeah, I've heard something similar in a GDC talk about Horizon: Zero Dawn's development, where they started doing playtests and everyone hated it, and after a year of testing the game became universally acclaimed.

V: Yeah, and that's really prevalent in big studios too, because you do not just get games like Read Dead Redemption 2 without like 4 years of playtesting and polish. Of course, indie studios do not have that luxury.

A: I talked to someone about this recently actually. One of the Owlboy developers, Adrian Bauer, told me that in his games they take a note of ideas that come up during development and see when they can address them later, since they never know what needs to be cut or changed due to constraints.

V: Yeah, and you can't really plan everything in advance after all. Someone will always have a great idea during development.

Appendix B. Interview with Adrian Bauer, co-founder and level designer of D-Pad Studio, from 8 July 2019 about fidelity procedures in indie games

> Hello! I'm a game design student currently writing his bachelors thesis on fidelity in games. I'm contacting several studios in order to get a picture of different approaches to fidelity. I have read your gamasutra blog posts about how you handled the story-rich level design within Owlboy, and if possible I would like to peek a little behind the curtain and ask about how maintaining that level of fidelity and rich storytelling throughout the game impacted the game's development. Were finer details of the game world added to the game's scope as you came up with them? How much of the game's (fairly long) development time was spent on crafting the details and believability of the world? Sincerely, Henri Beeres
>
> Jul 8, 2019, 3:59 PM ✓

> Hey, Sorry I don't have a ton to say right now about it but stories evolve over time and I went back multiple times to revise things. Sometimes your ambition outpaces the assets you have to make levels and it can also outpace your design skills. So when possible I went back to revise things I found to be weak or kind of dull.
>
> Jul 8, 2019, 5:15 PM

> Maintaining it is just about consistency with your work and keeping track of stuff that's good enough to progress the game for now. Polish should happen more so at the end and be kept in notes until then because there's no telling when you're going to rip out whole sections for whatever reason
>
> Jul 8, 2019, 5:17 PM

> Ahh that makes sense. No point in honing the details when they might get tossed later. Thanks a lot for the response! Even if you say it wasn't much, it got some gears turning in my head for connections I previously didn't grasp. Have a nice day!
>
> Jul 8, 2019, 5:35 PM ✓

> awesome! have a good one
>
> Jul 8, 2019, 5:38 PM