

What's a Mini-Game? The Anatomy of Fishing Mini-Games

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ABSTRACT

Fishing ‘mini-games’ are common in many contemporary video games. But what makes certain fishing-related video gaming elements into a ‘fishing mini-game’ *per se* and not merely a ‘fishing mechanic’? I answer this by examining how fishing elements vary from one implementation to another. Through analysing eight recent games with fishing, I identify and categorise a list of features where different implementations may vary. The resultant framework can assist designers to implement differently to cater to various player types and achieve specific goals. I also make a first attempt at distinguishing fishing mini-games from other fishing elements in video games. I identify two core considerations that, in my view, are crucial in rendering certain gameplay elements, but not others, a ‘mini-game:’ (i) gameplay-wise, the mini-game should be substantially different from other elements of the overarching video game and (ii) engagement with the mini-game should not be compulsory or effectively so.

Keywords

Mini-games; Mini games; Fishing; Game analysis; Video games; Videogaming

INTRODUCTION

Literature review: What exactly is a ‘mini-game’?

Fishing ‘mini-games’¹ specifically have not previously been dealt with by the academic literature. I tried to see whether mini-games generally have been the subject of academic research by conducting a thorough literature search. An examination of the digital archive of DiGRA (the Digital Games Research Association), the leading games research network, revealed that *no* paper has ever been keyworded with ‘mini game’ or ‘mini-game.’ Similarly, Google Scholar results for mini-games tend to return results concerning specific case applications in serious games or gamification contexts. The term ‘mini-game’ is understood differently in various papers. Three interpretations or common uses for that term are prevalent in the literature.

First definition: something less than a ‘proper’ video game

Firstly, a ‘mini-game’ might be a new temporally short and mechanically simple game that has been proposed and/or implemented specifically for a (serious game) purpose (see e.g., Asal et al. 2018), where the authors appear to have subjectively deemed said

¹ I use the term ‘mini-game’ to mean both ‘mini game’ and ‘mini-game’ spellings instead of referring to each separately, unless the distinction is relevant.

game to not qualify as a *proper* video game, which is, in contrast, potentially designed for commercial purposes, or however else ‘proper’ was defined.

Second definition: a ‘small’ and ‘trivial’ video game

Secondly, a ‘mini-game’ may refer to an existing (commercial) video game that has been subjectively deemed as being more simple than other games. Nava *et al.* (2020) claimed, without justification, that *Angry Birds* (Rovio, 2009); *Fruit Ninja* (Halfbrick Studios, 2010); *Minion Rush* (Gameloft, 2013) are ‘mini-games’ (p. 5), despite all three being complete commercial products that represent highly popular ‘genres’ of mobile video games, such as ‘endless runners’ (see Rosyid *et al.* 2019). Ray and Coulter (2010) at least attempted to justify why a distinction was drawn thusly:

‘Unlike the more complex games, which can take a longer time to master and have extended play across numerous sessions, mini-games are quickly mastered, and sessions can be completed within a short time period...’ (p. 92).

Similarly, Prensky (2005) spoke of so-called ‘trivial’ ‘mini-games’ (such as his example of *Bejeweled* (PopCap Games, 2001)) as opposed to ‘complex games’ (pp. 24–25). In contrast, others would have deemed this second type of so-called ‘mini-games,’ ‘casual games’ that are nonetheless video games and *not* ‘mini-games,’ such as in relation to ‘match-3’ and other puzzle games (Juul 2007). I suggest that there may be a confounding of what is a ‘small game’ and what is a ‘mini-game,’ and that this may have been compounded by translation issues where in some language no distinction is drawn between ‘small’ and ‘mini,’ (e.g., in Mandarin Chinese, where both would be ‘小’).

Third definition: incorporated elements of an overarching video game

Thirdly, a ‘mini-game’ is understood as incorporated elements of an overarching video games. Bartle (2009, 8), for example, spoke of ‘fishing mini-games’ in MMO (Massively Multiplayer Online) games. Chow *et al.* (2010) provided a definition of this interpretation for their paper:

‘...incorporated gameplay features such as ‘lock picking’ and/or ‘hacking’ as a part of the [overarching] game. These are mini-games within the overall game that the player has to solve in order to gain some sort of reward upon successful completion’ (p. 256).

Neither the first nor the second interpretation of a ‘mini-game’ provides an objective, workable definition. Both are subjective, and different people could come to potentially different conclusions as to whether any game constitutes a ‘mini-game.’ Similarly to Deterding *et al.*’s recent critique (2020) of Zagal *et al.*’s concept of ‘dark patterns’ (2013), the first two interpretations of ‘mini-games’ should not be used without placing them on more solid definitional foundations. In contrast, the third interpretation of a ‘mini-game’ is workable (although it perhaps can also be improved), and I shall proceed with that as my definition for what a ‘mini-game’ is as that is what is meant when one refers to a ‘fishing mini-game.’

What else are elements of a ‘mini-game’?

If a mini-game must be incorporated into an overarching video game, then fishing ‘simulation’ games, whose core game loop revolves around fishing whether realistic (e.g., *Ultimate Fishing Simulator* (Bit Golem, 2017)) or caricaturised (e.g., *Ridiculous Fishing* (Vlambeer, 2013)), are fishing video games and not video games containing fishing mini-games. Besides that one criterion, do different fishing mini-games share any other common features? How else can their implementations differ?

The literature has identified some such elements (always by implication when discussing other issues, as no study has explicitly sought to answer this research question): Bartle (2009) briefly described a social aspect such as the ability to ‘give fish to your friends’ that is supposedly shared by all fishing mini-games (at least within the MMO context) (p. 8). With reference to ‘lock picking’ and ‘hacking’ mini-games, Chow *et al.* (2010) spoke of gaining a reward upon successfully completing the mini-game and how failure may result in some sort of penalty (such as losing resources) as common features (pp. 256–257). Chow *et al.* (2010) also mentioned how time and difficulty level may be manipulated within a mini-game and how randomisation could be used to add further challenge and diversity (p. 257). Finally, Chow *et al.* (2010) noted how mini-games add complexity to the overarching video game by providing a different gameplay experience (p. 257). This notion that the mini-game is a foil to the overarching video game is echoed by one non-academic source that has argued that fishing mini-games are used to provide a respite from the usual gameplay: by being different from and by *not* being part of the ‘core game loop’ (see Sicart 2015), fishing mini-games can ironically make the overarching video game’s core game loop more appealing (Millard and The Architect of Games 2022).

METHOD

Taking inspiration from the methodology of Alharthi *et al.*’s work (2018) on dissecting and classifying ‘idle games’ and that of Ballou *et al.* (2020), which categorised various features of gambling-like loot boxes, this study explored the following eight games, as shown in Table 1: *Animal Crossing: New Horizons* (Nintendo, 2020; *ACNH*); *Cult of the Lamb* (Massive Monster, 2022; *COTL*); *Genshin Impact* (miHoYo, 2020; *Genshin*); *Hades* (Supergiant Games, 2018); *Kirby and the Forgotten Land* (HAL Laboratory, 2022; *Kirby*); *Monster Hunter Rise* (Capcom, 2021; *MHR*); *Stardew Valley* (ConcernedApe, 2016); and *The Legend of Zelda: Breath of the Wild* (Nintendo, 2017; *BOTW*). The present sample of games whose fishing mini games were studied is by no means exhaustive. Indeed, the sample selection is arguably also biased due to my preference for certain ‘genres’ (however that term might be defined (see Apperley 2006; Juul 2007)) and more recently published games, with which I was more familiar. Indeed, the criterion for inclusion is simply being a recently published game that I had access to (see Daneels *et al.* 2022). The justification for the limited sample size is based on resource constraints: specifically, on my time (see Lakens 2022). All fishing ‘simulation’ games were excluded because of the definition I have chosen for what constitutes a fishing ‘mini-game,’ which requires incorporation of the fishing elements within an overarching video game.

Game analysis was conducted through both personal gameplay (which was preferred) and reviewing of online resources where confirming a certain point is practically difficult to achieve (see Xiao 2022). Content analysis (as applied to game studies research (e.g., Alharthi *et al.* 2018; Ballou, Gbadamosi, and Zendle 2020; Xiao *et al.* 2021)) was structured as follows:

- (i) matters antecedent and/or prerequisite to the fishing (‘access’);
- (ii) the fishing itself:
 - a. the ‘casting;’
 - b. the ‘waiting;’ and
 - c. the ‘reeling;’ and
- (iii) matters subsequent to and/or resultant of the fishing (‘why fish?’).

Title	Year	Developer	Publisher	Platform Played
<i>Animal Crossing: New Horizons (ACNH)</i>	2020	Nintendo	Nintendo	Nintendo Switch
<i>Cult of the Lamb (COTL)</i>	2022	Massive Monster	Devolver Digital	Windows
<i>Genshin Impact (Genshin)</i>	2020	miHoYo	miHoYo	Apple iOS
<i>Hades</i>	2018	Supergiant Games	Supergiant Games	Windows
<i>Kirby and the Forgotten Land (Kirby)</i>	2022	HAL Laboratory	Nintendo	Nintendo Switch
<i>Monster Hunter Rise (MHR)</i>	2021	Capcom	Capcom	Nintendo Switch
<i>Stardew Valley</i>	2016	ConcernedApe	ConcernedApe	Windows
<i>The Legend of Zelda: Breath of the Wild (BOTW)</i>	2017	Nintendo	Nintendo	Nintendo Switch

Table 1: The list of 8 games analysed.

RESULTS

Access

In different games, players gained access to the fishing aspects of the overarching video game (broadly defined as being able to ‘put’ uncaught fish in the game world into the player’s inventory, as explained below under Section 3.2.2.) through various means. **No barrier:** In *BOTW*, the player is allowed to engage in ‘fishing’ without any restrictions. As soon as the player is allowed to freely roam the game world, the player can ‘fish.’ **Equipment/Item barrier:** In *Hades*, the player needs to purchase the ‘Rod of Fishing’ equipment/item before gaining access to the fishing elements. **Quest barrier:** In *Genshin*, the player must complete a specific, optional quest dedicated to rod-based fishing (see Section 3.2.2.) and which acts as the tutorial for fishing before being allowed to fish freely in the game world. **Progression barrier:** In *Kirby*, the player gained access to fishing after some progression through the overarching game. Unlike the Quest barrier, the player did not need to complete any optional progression that specifically only related to fishing.

Casting

Location

Where players were able to fish varied across games. There are two broad categories: (a) games where players were able to fish **anywhere** with a body of water and (b) games where players could only fish in **designated** areas. Amongst games that players were able to fish only in specific, designated areas: this could either be **multiple** specific locations in the game world (e.g., *Genshin*) or **only** one area that is dedicated to the fishing mini-game (e.g., *COTL*).

Method of fishing

In the vast majority of games examined, the method of fishing was with the use of a **rod** or pole. In contrast, in *BOTW*, the player does not have access to any dedicated fishing equipment; instead, the player must physically move towards the fish and complete a **pick-up** action to move the fish into their inventory. In *Genshin*, fish can be obtained through both a dedicated rod-based mini-game or picked-up from the open

world as in *BOTW*. Certain sections below are relevant only to rod-based fishing and therefore do not engage with the open-world pick-up-type fishing in *BOTW* and *Genshin* as they are not applicable.

Aiming

After arriving either at the designated fishing location or generally at a place where fishing is possible, the player must then cast down their rod. In *Genshin* and *MHR*, the player has **full control** over where the ‘hook’ of the rod goes and is able to pan both the x and y axes. In *Stardew Valley* and *COTL*, the player only has control over one axis: their player character will aim towards the direction that they are facing but they are able to control the **distance** of how far the line will be thrown using a power bar. In *ACNH*, the player cannot explicitly control how the character will aim the rod as it will always be cast a set distance away from the character in the direction that they are facing; however, the experienced player is able to effectively control both axis by **moving their character** appropriately such that they are facing a certain direction and standing a certain distance away from where they desire the hook to land. Finally, in *Kirby* and *Hades*, the player cannot aim their rod; upon commencing the fishing mini-game, they move automatically onto the next step of fishing: ‘waiting.’

Fish appearance

There are three categories by which the fish was shown on screen: (i) the **specific fish** that will be caught (if successful) is displayed; (ii) **shadows that vary in size** are shown; and (iii) **no indication** is shown as to what type of fish would be caught.

Title	Access	Location	Method of fishing	Aiming	Fish appearance
<i>ACNH</i>	Quest barrier	Anywhere	Rod	Move character	Shadow size
<i>COTL</i>	Progression barrier	Designated Only	Rod	Distance	Shadow size
<i>Genshin</i>	Quest barrier	Designated Multiple	Rod/Pick-up	Full control	Specific fish
<i>Hades</i>	Equipment/Item barrier	Designated Multiple	Rod	None	No indication
<i>Kirby</i>	Progression barrier	Designated Only	Rod	None	No indication
<i>MHR</i>	No barrier	Designated Multiple	Rod	Full control	Specific fish
<i>Stardew Valley</i>	Quest barrier	Anywhere	Rod	Distance	No indication
<i>BOTW</i>	No barrier	Anywhere	Pick-up	N/A	Specific fish

Table 2: Results as to Access and Casting.

Waiting

Nearly all games made the player do a timed reaction as part of ‘waiting’ for the fish to bite. If the player does not react quickly enough to the fish biting, the fishing attempt will fail. The exception is *COTL*, where there is no ‘waiting’ stage to the fishing mini-game and the player is skipped from ‘aiming’ to ‘reeling’ automatically.

Reeling

After the fish is on the hook, some games require the player to complete a further task before the fishing attempt is deemed successful. In *Kirby*, this further task was a

continuation of the reaction game for ‘waiting’: the player must continue to react to a few timed **button pressing** requirements before the fish is caught. In most games incorporating an additional task for ‘reeling,’ this tended to be a mini-game where the player must either continually keep a **cursor** within a box that automatically moves or ensure that a **box** continually encompasses a cursor that automatically moves. Finally, some games did not incorporate a ‘reeling’ element with the fishing and would always automatically catch the fish for the player upon successful completion of the ‘waiting’ element.

Why fish?

The relative importance of engaging with the fishing mini-game differs across games. In *ACNH* and *Stardew Valley*, it can be said that the designer expects all players to engage with the fishing mini-game as doing so forms part of the **core progression** of the overall game (completing the Museum and the Community Center, respectively). In *COTL* and *Genshin*, initial optional engagement with fishing provides the player with **important unlockables** that can significantly change the gameplay experience (e.g., providing unique and strong equipment for use in the overarching games) but continued engagement after obtaining the important initial rewards only provides relatively minor gameplay benefits. Finally, in other games, engagement with fishing only provides relatively **minor benefits** for gameplay of the overarching game.

DISCUSSION

Access

In relation to accessing fishing, there was a fine line between the different categories of barrier: for example, although the player had to speak with a specific NPC to unlock fishing in *Stardew Valley* (which was therefore categorised as having a Quest barrier), that task is so trivial that it is arguably comparable to obtaining a specific equipment/item (such that the Equipment/Item barrier may be more appropriate). Separately, although a prerequisite equipment/item for fishing must be purchased in *Hades* (which meant that it had an Equipment/Item barrier), the ability to purchase that item was conditioned on quite in-depth, general progression through the overarching game (the player had to have beaten certain stages, such that perhaps the Progression barrier might be more apt).

Although a nuanced categorisation was presented, more fruitful discussion may instead come from a binary distinction between whether there was or was not some barriers to access. Most games tended to have placed some restrictions on access. There are many potential benefits to doing so. Firstly, this barrier can be an opportunity to force the player to engage with a mandatory tutorial of the fishing elements. Secondly, this could be used to present a narrative background as to why fishing exists in a specific game world or even allow for general character building and storytelling. Thirdly, by requiring the player to have already become familiar with the core game loop before introducing the ‘respite’ fishing elements (if one accepts the argument in Section 1.2. as to why these fishing elements are often included), the player might more poignantly experience just how different the fishing elements are from the core game loop.

In contrast, a few games did not present any barriers to access. That design choice also accords with the design principles of those game. *BOTW* and *MHR* are both games that sought to place the player character in an open game world and to allow free exploration. By presenting no barriers to accessing fishing, the game might allow the player to more easily feel that fishing is a ‘natural’ part of the character’s experience. Indeed, although a tutorial for fishing might be helpful, the absence of which makes the game more ‘immersive’ and its storytelling more convincing, as tutorials discussing how the game character’s actions should be controlled with certain real-life controller

buttons is often extradiegetic (Fernández-Vara 2011, 8–9). Given that I have evidenced that the actual gameplay for the fishing elements is largely similar across games (see Sections 3.2–3.4), dedicated tutorials are arguably unnecessary. Designers should consider not including them where appropriate to create a more immersive and less disruptive gameplay experience.

Casting

Location

There may be technical difficulties with implementing fishing at all places within the game where bodies of water exist, which may explain why some games have decided to permit fishing only in designated areas. A dedicated fishing area provides opportunities for the designer to make that part of the game world stand out from the rest and help players to clearly distinguish between the overarching game and the fishing mini-game. On the other hand, not allowing players to fish everywhere might make players wonder why they could not fish in certain areas: similar to decorative doors that cannot be opened or enemy characters that cannot be fought (see Jonas and Ulrika 2007, 604).

Method of Fishing

The games examined showed a clear preference towards portraying fishing as a rod- or pole-based activity. ‘Harvesting’ fish in real-life could be done with many different tools besides a pole, such as with nets, harpoons, baskets, etc. The pole is preferred to portray ‘fishing’ in video games arguably because it is more individualistic and action-based than other forms of harvesting fish, where teamwork or significantly longer waiting times might be required. Notably, in *Stardew Valley*, besides fishing with a pole through an active mini-game as described above, the player can also ‘fish’ with a crab pot passively by placing it down near a body of water, putting down bait and then waiting until the next in-game day to harvest from it. Other more fictionalised depiction of ‘fishing’ can be seen in *BOTW* and *Genshin*, in which the player is able to use bombs and other abilities to assist in disabling the fish’s movement and allow for easier pick-up. In *Genshin*, the fish would even automatically turn into a fillet upon being hit with a combat ability.

Interestingly, fishing generally in *BOTW* and non-rod-based fishing in *Genshin*² are arguably not fishing mini-games within the definition of Chow *et al.* (2010) as I earlier adopted. This is because that definition implies some substantial differences between the gameplay of the overarching game and the fishing mini-game. The ‘hacking’ and the ‘lock picking’ puzzle-type mini-games used as examples by Chow *et al.* (2010, p. 256) are very distinct gameplay-wise from the overarching video games that contained them (which were action combat games). When attacking enemies and harvesting fruit in *BOTW* and *Genshin*, the player can perform the same actions with their bombs and combat abilities (as they did when fishing) and achieve the same successful result. Therefore, because what the player has to do to fish in these two games are not sufficiently distinct from what they have to do when performing other tasks, ‘fishing’ in these two games is arguably not a mini-game and is merely part of the general gameplay.

² References to ‘fishing’ in *Genshin* in this paragraph refers only to non-rod-based fishing in the open world.

Aiming and fish appearance

Aiming is relevant in some games but not in others. Some games show exactly what fish the player will obtain if they succeed in hooking said fish, whilst other games provide some hints (through the size of the fish's shadow) or give no indication whatsoever. Displaying the specific fish that would be obtained takes away an element of surprise but allows the player to choose only to attempt to fish for items/fishes that they want, whilst providing no indication preserves the surprise element but means that players are forced to fish up items/fishes that they do not want and potentially waste time. Providing some indication through shadow sizes appears to be a middle-ground approach that allows players to make a partially informed decision as to when to choose to fish but also preserves some element of surprise. Not providing any indication as to what would be fished is the method that can reasonably be expected to keep the player engaged with the mini-game for the longest length of time (at least in the short-term). However, designers should question whether it is of benefit to the game company and/or the player to keep the player engaged with the fishing elements for a significantly length of time. Some players enjoy and may benefit from 'grinding' (see Woods 2022), but such engagement with a repetitive task may also lead to negative life consequences and potentially video gaming 'addiction' (see Aarseth et al. 2016). Companies could consider allowing players to choose whether they would like to receive any indication as to what they would obtain by fishing, such that players can decide whether they prefer efficiency or a pleasant element of surprise, or perhaps a mix of the two as the player engages with fishing at different stages of gameplay (*e.g.*, a less experienced player might prefer the element of surprise over efficiency and *vice versa*).

Waiting

The design of the 'waiting' element is particularly monolithic: nearly all games relied on a reaction mechanic. The most prominent issue here is accessibility (see Yuan, Folmer, and Harris 2011): specifically whether all players can equitably engage with such a mechanic. Whether fishing succeeds or fails and what rewards are obtained are based on reaction time: that predetermined, relatively short reaction time by which the player *should* have reacted might not be appropriate for all players. Some of the audio and visual cues that are used to indicate when the player should react might not be easily perceivable by all players. This means that some players might be disadvantaged if they are unable to react quickly enough. Mandatorily removing this aspect from the gameplay entirely, as *COTL* has done, has eliminated any challenge and may not be ideal for the players who do wish to experience this interaction. Designers could therefore consider making the reaction-part optional; this may also make this task less repetitive if the player fishes multiple times in a row.

Reeling

The 'reeling' part of the mini-game is likely to be seen as the 'main' part of the mini-game as this tends to be where the player would be most engaged with the game by performing the greatest number of actions (*e.g.*, mashing or holding and releasing a button to keep a cursor in a moving box or *vice versa*). However, as *ACNH* and *Hades* (neither of which have this 'reeling' part) demonstrated, this is not an inherently requisite part of a fishing mini-game. The same concern that was raised in relation to the 'aiming' part is again relevant: the task is repetitive in all cases observed. Keeping a cursor in a moving box or *vice versa* might be an interesting mini-game, but it is difficult to justify requiring the player to engage with such a process hundreds or even thousands of times (as one achievement in *Genshin* requires). Games like *Stardew Valley* implemented additional sub-mechanics into the fishing mini-game to make each instance less repetitive; however, it should be fair to conclude that most players would find engaging with a fishing mini-game more than a few dozen times repetitive. Games could consider making the 'reeling' part optional after the player has completed said

mini-game a predetermined number of times: similarly to how, in *Genshin*, a reaction time-based cooking mini-game can be skipped after the player succeeds in it a number of times. Companies can also consider implementing different rewards to ensure that players are not forced to repeatedly engage with a repetitive task that they do not want to perform.

Why fish?

Some games encouraged players to engage with the fishing mini-game by offering unique rewards. For example, in *Genshin*, which is a free-to-play game that is predominantly monetised using an arguably predatory loot box/gacha mechanic (see Xiao et al. 2022), the player is able to gain access to a very strong weapon (a polearm called “The Catch”) for free. Such a direct exhortation will strongly encourage players to engage with fishing; however, it seems likely that such ‘forced’ engagement with the mini-game would mean that many players will stop engaging with fishing after they have unlocked the relevant important reward, such that the extrinsic motivating factor for engagement is no longer present. In other games, in contrast, fishing does not provide particularly valuable rewards, such that players are more likely to be intrinsically motivated to engage. However, it is likely that fewer players would engage with the fishing mini-games in these latter games, although those players that do might have a more genuinely fulfilling experience.

Finally, in *ACNH* and *Stardew Valley*, fishing is one of a few main areas of gameplay, such that engagement is virtually required for core progression. It is true that players might be able to complete a playthrough without fishing (similarly to how a player might complete a ‘vegan’ playthrough of *BOTW* (see Westerlaken 2017)), but doing so was not intended by the designer and is likely to be significantly more practically difficult than a regular playthrough. I recall that the definition of a mini-game that I adopted appears to imply some manner of optionality: that the mini-game must *not* form part of the core gameplay loop and must *not* be mandatory or effectively compulsory (see Millard and The Architect of Games 2022). Therefore, arguably, the fishing elements in *ACNH* and *Stardew Valley* do not fit comfortably into my adopted definition of a fishing mini-game.

Title	Waiting	Reeling	Why fish?
<i>ACNH</i>	Reaction	None	Core progression
<i>COTL</i>	None	Box/Cursor	Important unlockables
<i>Genshin</i>	Reaction	Box/Cursor	Important unlockables
<i>Hades</i>	Reaction	None	Minor benefits
<i>Kirby</i>	Reaction	Button pressing	Minor benefits
<i>MHR</i>	Reaction	None	Minor benefits
<i>Stardew Valley</i>	Reaction	Box/Cursor	Core progression
<i>BOTW</i>	N/A	N/A	Minor benefits

Table 3: Results as to Waiting, Reeling, and Why fish?.

Limitations

I attempted to add games (whose fishing mini-game features differed from those of other already analysed games) into the sample through the research process to present as diverse a range of fishing mini-game features as reasonably practical given resource and time constraints. However, as the saying goes: ‘there are plenty more fish in the sea.’ Many existing fishing mini-game implementations have not been included. In addition, the framework can be made more granular as there are many aspects of fishing mini-games that have not been considered: for example, what are the in-game ‘punishments’ for when a fishing mini-game is ‘failed’ by the player? The framework presented herein should therefore be viewed as a work-in-progress. Indeed, designers

should consider whether they might improve on the existing implementations presented herein and create new features. Analysis frameworks or ‘anatomies’ could also be built for other mini-game ‘types,’ such as lock picking and hacking mini-games. A comparison between such frameworks could identify similarities and differences that may help us to better understand mini-games more generally.

CONCLUSIONS

This preliminary study presented a tentative framework through which fishing mini-games may be analysed. Discussions of how different games have implemented various elements divergently revealed a number of empirical questions that could be answered through future research on players and designers: for example, whether engagement with the fishing mini-game decreased sharply after players obtained the extrinsic reward that is exclusively available through fishing (so called ‘important unlockables’). In addition, how players interact with and feel about fishing mini-games and how those experiences might differ between different groups of players in relation to different games were beyond the ambit of this study but are worthy of further study.

A main theme that I have identified is that with supposedly optional mini-games, it might be ideal when catering to different types of players to allow the players themselves to choose and be able to change certain options: for example, whether they would like to see and know what fish they will obtain if they succeed in a specific attempt and whether they want to engage in a reaction time-based mechanic. Finally, I have also identified that no widely agreed definition for a ‘mini-game’ yet exist in the academic literature and that developing such a definition might prove difficult: where should the line be drawn between the fishing elements or a ‘mechanic’ of an overarching video game and the fishing ‘mini-game’ contained within an overarching game? Both would be incorporated within an overarching video game, but some core considerations that, in my opinion, distinguish a mini-game from a mechanic of the overarching video game, are that: (i) gameplay-wise, the mini-game should be substantially different from other elements of the overarching video game and (ii) engagement with the mini-game should not be compulsory or effectively so.

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